

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

R Plevin & Sons Limited

Crookford Hill Materials Recycling Facility
Elkesley
Retford
Nottinghamshire
DN22 8BT

Variation application number

EPR/TP3098EU/V002

Permit number

EPR/TP3098EU

Crookford Hill Materials Recycling Facility

Permit Number EPR/TP3098EU

Introductory note

This introductory note does not form a part of the permit

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

Waste Management Licence EAWML 100358 was issued for the site on 19 June 2008, under the Environmental Protection Act 1990, to authorise the recovery and storage, prior to disposal or recovery, of waste materials in the Materials Recycling Facility. The waste types specifically permitted to be received at the facility are non-hazardous waste wood and wood products. The permit holder, R Plevin & Sons Limited, has applied to vary their permit.

The variation is to permit the operation of an installation within the facility, whose purpose is the energy recovery from waste in a co-incineration plant. The relevant listed activity is Section 1.1 Part A(1)(b)(iii) of Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2010. The consolidated permit implements the requirement of the EU Directives on Integrated Pollution Prevention and Control, Waste Incineration and the Waste Framework Directive.

The activities authorised in the current permit will continue to be authorised under this consolidated Environmental Permit..

The main features of the permit are as follows:

- The installation, which will comprise a combined heat and power (CHP) plant and animal bedding production drying process;
- The specified waste management activities currently operating as the Materials Recycling Facility.

The facility will continue to receive only non-hazardous waste wood and wood products which have undergone segregation prior to acceptance on site. The facility will be restricted to its current permitted capacity of 100,000 tonnes of waste per annum, of which up to 24,200 tonnes per annum will be diverted and treated to provide fuel for the CHP plant.

The CHP plant will employ a moving grate furnace with energy recovery by means of an intermediate oil boiler supplying heat to drive an organic rankine cycle (ORC) turbine to produce approximately 1.8MW of electricity. Waste heat from the condenser on the ORC will be used to supply the 7.7MW of heat for a drying line for the production of animal bedding.

The combustion plant will be required to meet the WID requirements of retention of the combustion gases at a minimum of 850°C for 2 seconds. Flue gas re-circulation and the injection of urea will be provided to reduce oxides of nitrogen release. Acid gas release will be minimised through the injection of sodium bicarbonate. Activated carbon will be injected to reduce volatile metals and organic pollutants such as dioxins and furans. Particulates from the CHP exhaust will be subject to removal through a combination of cyclone, electrostatic precipitator and bag filter.

Emissions from the stack will be continuously monitored for: particulate matter, carbon monoxide (CO), sulphur dioxide (SO₂), hydrogen chloride (HCl), oxygen (O₂), nitrogen oxides (NO_x) and volatile organic compounds (VOC). In addition periodic sampling and measurement will be carried out for ammonia, nitrous oxide, heavy metals dioxins and furans and dioxin- like PCBs.

The animal bedding production drying process will comprise an enclosed perforated drying belt, on which shavings of virgin timber will be dried by warm air passing down through the bed of shavings and through the drying belt. Intermediate heat exchangers, taking waste heat from the ORC turbine condenser, will be used to warm the air to approximately 80°C. After passing through the drying belt, the warm air will be exhausted to atmosphere through 3 vents. An emission limit value for particulates has been applied to the dryer vents, and periodic sampling and measurement will be carried out to ensure compliance.

Site Location

The 4.7 hectare facility lies approximately 700m to the west of the village of Elkesley. The area to the north and east is predominantly agricultural fields with a few number of agricultural and residential properties lying outside the immediate confines of the village. To the south and west lies wooded vegetation.

The Habitats site Birklands and Bilhaugh SAC/SSSI lies within 10km of the installation. Within 2km of the installation there are no SSSIs but there are 4 local wildlife sites.

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

Status Log of the permit

Detail	Date	Comments
Permit Issued EAWML 100358	19/06/08	Issued as waste management licence
Substantial Variation Application EPR/TP3098EU/V002 Received	19/02/10	To add a wood burning combined heat and power plant with integral animal bedding drying process to the permit
Additional information received	25/10/10 and 09/11/10	By email regarding noise and air dispersion modelling details
Additional information received	17/2/11 and 24/2/11	By email regarding potential WID compliance
Additional information received	22/3/11	Response to Sch 5 dated 4/2/11
Additional information received	1/8/11	Response to Sch 5 dated 4/7/11

Status Log of the permit

Detail	Date	Comments
Additional information received	2/9/11	By email regarding dryer emissions and revised air quality modelling data
Additional information received	30/9/11	By email regarding corrections to air quality modelling data table in Sch5 response of 1/8/11
Additional information received	6/10/11	By email regarding confirmation of noise modelling sources
Additional information received	21/10/11	By e-mail regarding waste wood chemical analysis
Additional information received	1/11/11	By e-mail regarding emission points and standby CEMs
Additional information received	10/11/11	By e-mail regarding CHP electrical demand
Additional information received	10/11/11	By e-mail confirming APC/fly ash residue handling
Additional information received	9/12/11	By e-mail correcting noise impact assessment details in Sch 5 response of 1/8/11
Variation determined EPR/TP3098EU	20/03/2012	Varied and consolidated permit issued in modern condition format.

End of Introductory Note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

permit number
EPR/TP3098EU

issued to
R Plevin and Sons Limited (“the operator”),

whose registered office is

Cheshire Street
Mossley
Ashton under Lyne
Lancashire
OL5 9NG

company registration number **01168723**

to operate a regulated facility at

Crookford Hill Materials Recycling Facility
Elkesley
Retford
Nottinghamshire
DN22 8BT

to the extent set out in the schedules.

The notice shall take effect from 20/03/2012

Name	Date
A.J. Nixon	20 March 2012

Authorised on behalf of the Environment Agency

Schedule 1

All conditions in permit EAWML 100358 have been varied by the consolidated permit EPR/TP3098EU as a result of the application made by the operator.

Schedule 2 –consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/TP3098EU

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/TP3098EU/V002 authorising

R Plevin and Sons Limited (“the operator”),

whose registered office is

**Cheshire Street
Mossley
Ashton under Lyne
Lancashire
OL5 9NG**

company registration number **01168723**

to operate an installation and waste operations at

**Crookford Hill Materials Recycling Facility
Elkesley
Retford
Nottinghamshire
DN22 8BT**

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

Name	Date
A.J. Nixon	20 March 2012

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 A1 to A3, the operator shall:
- (a) take appropriate measures to ensure that energy is recovered with a high level of energy efficiency and energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy recovery and efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 For the following activities referenced in schedule 1, table S1.1 A1 to A3, the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

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

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

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").
- 2.1.2 Waste authorised by this permit in condition 2.3.3 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) 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 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.

- 2.3.4 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 activity referenced in schedule 1, table S1.1 A1, waste shall not be charged, or shall cease to be charged, if:
- (a) the combustion chamber temperature is below, or falls below, 850°C; or
 - (b) monitoring results required to demonstrate compliance with any continuous emission limit values in schedule 3 table S3.1 are unavailable other than under WID abnormal operating conditions.
- 2.3.7 For the following activity referenced in schedule 1, table S1.1 A1, 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 activity referenced in schedule 1, table S1.1 A1, the operator shall record the beginning and end of each period of "WID abnormal operation".
- 2.3.9 For the following activity referenced in schedule 1, table S1.1 A1, 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 activity referenced in schedule 1, table S1.1 A1, 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 a co-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, or continuous emission monitor(s) are out of service.
- 2.3.11 For the following activity referenced in schedule 1, table S1.1 A1, 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 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 Bottom ash and APC residues shall not be mixed.

2.4 Improvement programme

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

2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 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 table S3.1 except under "WID abnormal operation".
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Wastes produced at the site shall, as a minimum, be sampled and analysed in accordance with schedule 3 table S 3.3. Additional samples shall be taken and tested and appropriate action taken, whenever:
 - (a) disposal or recovery routes change; or
 - (b) it is suspected that the nature or composition of the waste has changed such that the route currently selected may no longer be appropriate.

3.2 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.

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

3.3 Odour

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

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan;
- (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 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1 and S3.1(a);
- (b) process monitoring specified in table S3.2;
- (c) residue quality in table S3.3.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing by the Environment Agency. Newly installed CEMs, or CEMs replacing existing CEMs, shall have MCERTS certification and have an MCERTS certified range which is not greater than 1.5 times the daily emission limit value (ELV) specified in schedule 3 table S3.1. The CEM shall also be able to measure instantaneous values over the ranges which are to be expected during all operating conditions. If it is necessary to use more than one range setting of the CEM to achieve this requirement, the CEM shall be verified for monitoring supplementary, higher ranges.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.1(a) unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 Where Continuous Emission Monitors are installed to comply with the monitoring requirements in schedule 3 table S3.1; the Continuous Emission Monitors shall be used such that;
- (a) the values of the 95% confidence intervals of a single measured result at the daily emission limit value shall not exceed the following percentages:

• Carbon monoxide	10%
• Sulphur dioxide	20%
• Oxides of nitrogen (NO & NO ₂ expressed as NO ₂)	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 3.5.5 (a);
 - (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.

4 Information

4.1 Records

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

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 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.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and

- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 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.
- 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.
- 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.
- 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.

4.4 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 I and II activities	Limits of specified activity
A1	S1.1 A1 (b) (iii)	Burning any fuel manufactured from, or comprising, any other waste, in an appliance with a rated thermal input of 3 or more megawatts, but less than 50 megawatts.	<p>From receipt of waste wood and other raw materials identified for the operation of the combustion plant, including treatment and storage, to emission of exhaust gas and storage and disposal of wastes arising from the combustion process and abatement plant.</p> <p>Waste types and quantity as specified in Table S2.2 of this permit, where the combined quantity of waste submitted to both this activity, A1, and activity A4 does not exceed the quantity specified in Table S2.3.</p>
Directly Associated Activities			
A2	Electricity Generation	Generation of 1.8MWe electrical power using an organic rankine cycle turbine from energy recovered from the flue gases.	Use of electricity on site and export to National Grid
A3	Animal bedding production dryer	Recovery of 7.7MW of heat from the organic rankine cycle turbine to operate an animal bedding production drying line.	The operation of the dryer plant, after the introduction of raw material, to the vented emissions to air from the drying line, but not including raw material processing before introduction to the drying line nor handling or storage of product from the drying line.
	Description of activities for waste operations		

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II activities	Limits of specified activity
A4	Materials Recycling Facility	<p>D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R3: Recycling/reclamation of organic substances which are not used as solvents</p> <p>R4: Recycling/reclamation of metals and metal compounds</p> <p>R5: Recycling/reclamation of other inorganic compounds</p>	<p>From receipt of waste to despatch of recovered materials and disposal of waste arising, not involving any of the waste to be subjected to activity A1 above.</p> <p>Physical treatment consisting of sorting, separation, screening, shredding, baling or compaction of waste.</p> <p>Waste types and quantities as specified in Table S2.3 of this permit, where the combined quantity of waste submitted to both this activity, A4, and activity A1 does not exceed the quantity specified in Table S2.3.</p> <p>All waste to be treated and kept on an impermeable surface with a sealed drainage system.</p> <p>Wastes consisting solely or mainly of dusts (with the exception of sawdust), powders or loose fibres shall not be accepted.</p>

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Response to Part C – including all supporting information as modified by the Schedule 5 responses identified below.	09/03/10
Response to Schedule 5 Notice dated 04/05/11	Answer to questions:- 1, 2, 3, 4, 5, 7 (as modified by response to Schedule 5 of 04/07/2011), 8, 9, 16 and 17	22/03/11
Response to Schedule 5 Notice dated 04/07/2011	Answer to questions:- 1, 2, 3, 4, 5, 9, 11 and Appendix A	01/08/11

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The Operator shall submit a written report to the Environment Agency on the commissioning of the activities A1, A2 and A3 referenced in schedule 1, table S1.1. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall also include a review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.	Within 4 months of the completion of commissioning.

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC2	<p>The operator shall submit a written proposal to the Environment Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission points A1, A2, A3 and A4, identifying the fractions within the PM10, PM2.5 and PM1.0 ranges. The proposal shall include a timetable for approval by the Environment Agency to carry out such tests and produce a report on the results.</p> <p>On receipt of written agreement by the Environment Agency to the proposal and the timetable, the operator shall carry out the tests and submit to the Environment Agency a report on the results.</p>	Within 6 months of the completion of commissioning
IC3	The Operator shall carry out checks to verify the residence time, minimum temperature and oxygen content of the exhaust gases in the furnace whilst operating under the anticipated most unfavourable operating conditions. The results shall be submitted in writing to the Environment Agency.	Within 4 months of the completion of commissioning.
IC4	<p>The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of the Selective Non Catalytic Reduction (SNCR) system and combustion settings to minimise oxides of nitrogen (NO_x) emissions within the emission limit values described in this permit with the minimisation of nitrous oxide emissions. The report shall include an assessment of the level of NO_x and N₂O emissions that can be achieved under optimum operating conditions.</p> <p>The report shall also provide details of the optimisation (including dosing rates) for the control of acid gases and dioxins.</p>	Within 4 months of the completion of commissioning.
IC5	The Operator shall carry out an assessment of the impact of emissions to air of all the component metals subject to emission limit values, i.e. Cd, As, Cr, and Ni. The assessment shall predict the impact of each metal against the relevant EQS/EAL through the use of emissions monitoring data during the first year of operation and air dispersion modelling. A report on the assessment shall be made to the Environment Agency.	Within 15 months from commencement of operations.
IC6	The operator shall submit a written summary report to the Agency to confirm by the results of calibration and verification testing that the performance of Continuous Emission Monitors for parameters as specified in Table S3.1 and Table S3.1(a) complies with the requirements of BS EN 14181, specifically the requirements of QAL1, QAL2 and QAL3.	<p>Initial calibration report to be submitted to the Agency within 3 months of completion of commissioning.</p> <p>Full summary evidence compliance report to be submitted within 18 months of commissioning.</p>
IC7	The operator shall carry out a noise monitoring survey at the facility to quantify the noise impact during normal operation against the information supplied in the application and for PO5 below. The methodology and monitoring locations will be agreed in writing with the Environment Agency. The result of the survey shall be provided to the Environment Agency.	Within 9 months from commencement of operations.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC8	The Operator shall carry out an assessment of the impact of emissions to air from activity A1 on local wildlife sites, Bothamsall Grassland Plantation, Poulter Valley(East) and Poulter Valley (West), using emissions monitoring data gathered during the first year of operation and air dispersion modelling. A report on the assessment, including deposition of nutrient nitrogen and acid gases, shall be made to the Environment Agency.	Within 15 months from commencement of operations.

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO1	Prior to the commencement of commissioning of activities A1, A2 and A3 referenced in schedule 1, table S1.1, the Operator shall send a summary of the site Environment Management System (EMS) to the Environment Agency and make available for inspection all documents and procedures which form part of the EMS. The EMS shall be developed in line with the requirements set out in Section 1 of How to comply with your environmental permit – Getting the basics right. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit and shall cover all the activities permitted at this facility.
PO2	Prior to the commencement of commissioning of activity A1 referenced in schedule 1, table S1.1, the Operator shall submit to the Environment Agency for approval a protocol for the sampling and testing of incinerator bottom ash for the purposes of assessing its hazard status. Sampling and testing shall be carried out in accordance with the protocol as approved.
PO3	Prior to the commencement of commissioning of activities A1, A2 and A3 referenced in schedule 1, table S1.1, the Operator shall provide a written commissioning plan, including timelines for completion, for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.
PO4	Prior to commencement of commissioning of activity A1 referenced in schedule 1, table S1.1, the Operator shall submit a written report to the Environment Agency detailing the waste acceptance procedures to be used at the site. The waste acceptance procedures shall include the process and systems by which wastes unsuitable for incineration at the site will be controlled. The procedure shall be implemented in accordance with the written approval from the Agency.
PO5	Prior to commencement of installation of plant and building associated with the combustion of waste and the animal bedding dryer, the operator shall submit a report to the Environment Agency detailing the design considerations relating to noise reduction of the new plant and buildings to achieve the levels of protection identified in the application.
PO6	After completion of furnace design and at least three calendar months before any furnace operation; the operator shall submit a written report to the Agency of the details of the computational fluid dynamic (CFD) modelling. The report shall demonstrate whether the design combustion conditions comply with the residence time and temperature requirements as defined by the Waste Incineration Directive.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
Fuel Oil	< 0.1% sulphur content
-	-

Table S2.2 Permitted waste types and quantities for co-incineration plant

Maximum quantity	24,200 tonnes per annum
Waste code	Description
02 01 03	Plant-tissue waste
02 01 07	Wastes from forestry
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03 01	Waste bark and cork
15 01 03	Wooden packaging
17 02 01	Wood
19 12 07	Wood other than that mentioned in 19 12 06
20 01 38	Wood other than that mentioned in 20 01 37
20 02 01	Biodegradable waste

Table S2.3 Permitted waste types and quantities for the materials recycling facility

Maximum quantity	100,000 tonnes per annum
Waste code	Description
02 01 03	Plant-tissue waste
02 01 07	Wastes from forestry
03 01 01	Waste bark and cork
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03 01	Waste bark and cork
15 01 03	Wooden packaging
17 02 01	Wood
19 12 07	Wood other than that mentioned in 19 12 06
20 01 38	Wood other than that mentioned in 20 01 37
20 02 01	Biodegradable 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)	Reference period	Monitoring frequency	Monitoring standard or method
A1 as shown on plan in schedule 7	Particulate matter	Exhaust Stack from co-incineration plant	15 mg/m ³	daily average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Particulate matter	Exhaust Stack from co-incineration plant	45 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Total Organic Carbon (TOC)	Exhaust Stack from co-incineration plant	15 mg/m ³	daily average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Total Organic Carbon (TOC)	Exhaust Stack from co-incineration plant	30 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Hydrogen chloride	Exhaust Stack from co-incineration plant	15 mg/m ³	daily average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Hydrogen chloride	Exhaust Stack from co-incineration plant	90 mg/m ³	½-hr average	Continuous measurement	BS EN 14181

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

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 as shown on plan in schedule 7	Hydrogen fluoride	Exhaust Stack from co-incineration plant	3 mg/m ³	periodic over minimum 1-hour period	Quarterly in first year. Then Bi-annual	BS ISO 15713
A1 as shown on plan in schedule 7	Carbon monoxide	Exhaust Stack from co-incineration plant	75 mg/m ³	daily average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Carbon monoxide	Exhaust Stack from co-incineration plant	150 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Sulphur dioxide	Exhaust Stack from co-incineration plant	75 mg/m ³	daily average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Sulphur dioxide	Exhaust Stack from co-incineration plant	300 mg/m ³	½-hr average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	Exhaust Stack from co-incineration plant	300 mg/m ³	daily average	Continuous measurement	BS EN 14181
A1 as shown on plan in schedule 7	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	Exhaust Stack from co-incineration plant	600 mg/m ³	½-hr average	Continuous measurement	BS EN 14181

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

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 as shown on plan in schedule 7	Cadmium & thallium and their compounds (total)	Exhaust Stack from co-incineration plant	0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 14385
A1 as shown on plan in schedule 7	Mercury and its compounds	Exhaust Stack from co-incineration plant	0.05 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 13211
A1 as shown on plan in schedule 7	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	Exhaust Stack from co-incineration plant	0.5 mg/m ³	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 14385
A1 as shown on plan in schedule 7	Ammonia (NH ₃)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 1-hour period	Quarterly in the first year of operation, then bi-annual	Procedural requirements of BS EN 14791
A1 as shown on plan in schedule 7	Nitrous oxide (N ₂ O)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 1-hour period	Quarterly in the first year of operation, then bi-annual	BS EN ISO 21258
A1 as shown on plan in schedule 7	Dioxins / furans (I-TEQ)	Exhaust Stack from co-incineration plant	0.1 ng/m ³	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3
A1 as shown on plan in schedule 7	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948-4

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

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 as shown on plan in schedule 7	Dioxin-like PCBs (WHO-TEQ Fish)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948-4
A1 as shown on plan in schedule 7	Dioxin-like PCBs (WHO-TEQ Birds)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948-4
A1 as shown on plan in schedule 7	Specific individual polycyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS ISO 11338 Parts 1 and 2.
A1 as shown on plan in schedule 7	Dioxins / furans (WHO-TEQ Humans / Mammals)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3
A1 as shown on plan in schedule 7	Dioxins / furans (WHO-TEQ Fish)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3
A1 as shown on plan in schedule 7	Dioxins / furans (WHO-TEQ Birds)	Exhaust Stack from co-incineration plant	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN 1948 Parts 1, 2 and 3
A2 as shown on plan in schedule 7	Particulate matter	Exhaust from dryer plant	5 mg/m ³	periodic over minimum 1 hour	Quarterly in first year. Then Bi-annual	BS EN 13284-1

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

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A3 as shown on plan in schedule 7	Particulate matter	Exhaust from dryer plant	5 mg/m ³	periodic over minimum 1 hour	Quarterly in first year. Then Bi-annual	BS EN 13284-1
A4 as shown on plan in schedule 7	Particulate matter	Exhaust from dryer plant	5 mg/m ³	periodic over minimum 1 hour	Quarterly in first year. Then Bi-annual	BS EN 13284-1

Table S3.1(a) Point source emissions to air during abnormal operation of incineration plant – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 as shown on plan in schedule 7	Particulate matter	Exhaust Stack from co-incineration plant	90 mg/m ³	½-hr average	Continuous measurement	BS EN 14181 during abatement plant failure or alternative surrogate as agreed in writing during failure of the continuous emission monitor

Table S3.2 Process monitoring requirements

Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Location close to the Combustion Chamber inner wall or as identified and justified in Application.	Temperature (° C)	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1 as shown on plan in schedule 7	Exhaust gas temperature	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1 as shown on plan in schedule 7	Exhaust gas pressure	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1 as shown on plan in schedule 7	Exhaust gas oxygen content	Continuous	BS EN 15267-3 BS EN 14181	

Table S3.3 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	TOC	<3%	Monthly in the first year of operation. Then Quarterly	Environment Agency ash sampling protocol.	
Bottom Ash	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.		Monthly in the first year of operation. Then Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
Bottom Ash	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions		Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	
APC Residues	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.		Monthly in the first year of operation. Then Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
APC Residues	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions		Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	

* Or other equivalent standard as agreed in writing with the Environment Agency.

Schedule 4 - Reporting

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

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1	A1, A2 , A3, A4	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
TOC Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	Bottom Ash	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	Bottom Ash	Before use of a new disposal or recycling route	
Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs Parameters as required by condition 3.5.1	APC Residues	Quarterly (but monthly for the first year of operation)	1 Jan, 1 Apr, 1 Jul and 1 Oct
Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions Parameters as required by condition 3.5.1	APC Residues	Before use of a new disposal or recycling route	
Functioning and monitoring of the incineration plant as required by condition 4.2.2		Annually	1 Jan

Table S4.2: Annual production/treatment

Parameter	Units
Total waste received by the facility	tonnes
Total waste received by the facility subsequently recovered	tonnes
Total waste burnt in co-Incinerator	tonnes
Electrical energy produced	KWh
Electrical energy exported	KWh
Electrical energy used on installation	KWh
Waste heat utilised by the installation	KWh

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Electrical energy exported, imported and used at the installation	Quarterly	KWh / tonne of waste incinerated
Fuel oil consumption	Quarterly	Kgs / tonne of waste incinerated
Mass of Bottom Ash produced	Quarterly	Kgs / tonne of waste incinerated
Mass of APC residues produced	Quarterly	Kgs / tonne of waste incinerated
Urea consumption	Quarterly	Kgs / tonne of waste incinerated
Activated Carbon consumption	Quarterly	Kgs / tonne of waste incinerated
Sodium Bicarbonate consumption	Quarterly	Kgs / tonne of waste incinerated
Water consumption	Quarterly	Kgs / tonne of waste incinerated
Periods of WID abnormal operation	Quarterly	Number of occasions and cumulative hours for current calendar year for each line.

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Forms Air 1 - 8 or other form as agreed in writing by the Environment Agency	27/02/12
Water usage and Raw Materials	Form WU/RM1 or other form as agreed in writing by the Environment Agency	27/02/12
Energy usage	Form E1 or other form as agreed in writing by the Environment Agency	27/02/12
Wastes Produced	Form R1 or other form as agreed in writing by the Environment Agency	27/02/12
Ash quality	Forms Residue 1-2 or other form as agreed in writing by the Environment Agency	27/02/12
Other performance indicators	Form Performance 1 or other form as agreed in writing by the Environment Agency	27/02/12

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 the operator

Schedule 6 - Interpretation

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

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

“APC residues” means air pollution control residues.

“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.

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

“bottom ash” means ash falling through the grate and transported by the grate.

“CEM” Continuous emission monitor.

“CEN” means Comité Européen de Normalisation.

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

“D” means a disposal operation provided for in Annex IIA to Directive 2008/98/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 during normal operation.

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

“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.

“emissions to land” includes emissions to groundwater.

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

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

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

“*hazardous property*” has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

“*ISO*” means International Standards Organisation.

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

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

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

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

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

“*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.

“*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 2008/98/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.

“*start up*” is any period, where the plant has been non-operational, after igniting the auxiliary burner until 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.

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

“*Waste 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.

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

“*WFD*” means Waste Framework Directive (Directive 2008/98/EC of the European Parliament and of the Council of 5 April 2006 on Waste).

“*WID abnormal operation*” means any technically unavoidable stoppages, disturbances, or failures of the abatement plant or the measurement devices, 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.

“year” means calendar year ending 31 December.

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:

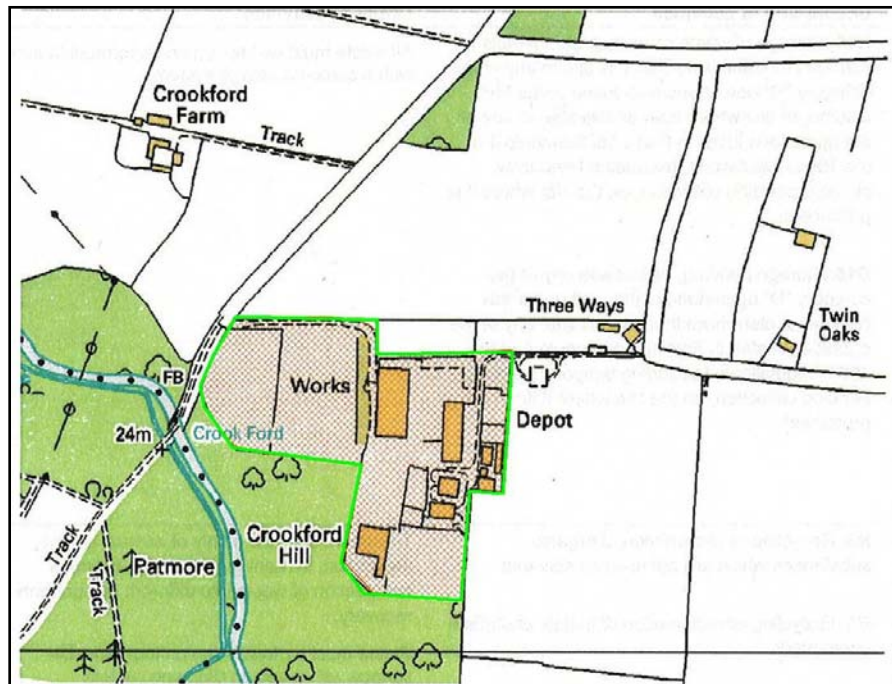
- (a) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content
- (b) in relation to gases from co-incineration plants the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 6% dry

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

TEF schemes for dioxins and furans				
Congener	I-TEF	WHO-TEF		
	1990	2005	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	0.0003	-	-
Furans				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.3	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	0.0003	0.0001	0.0001

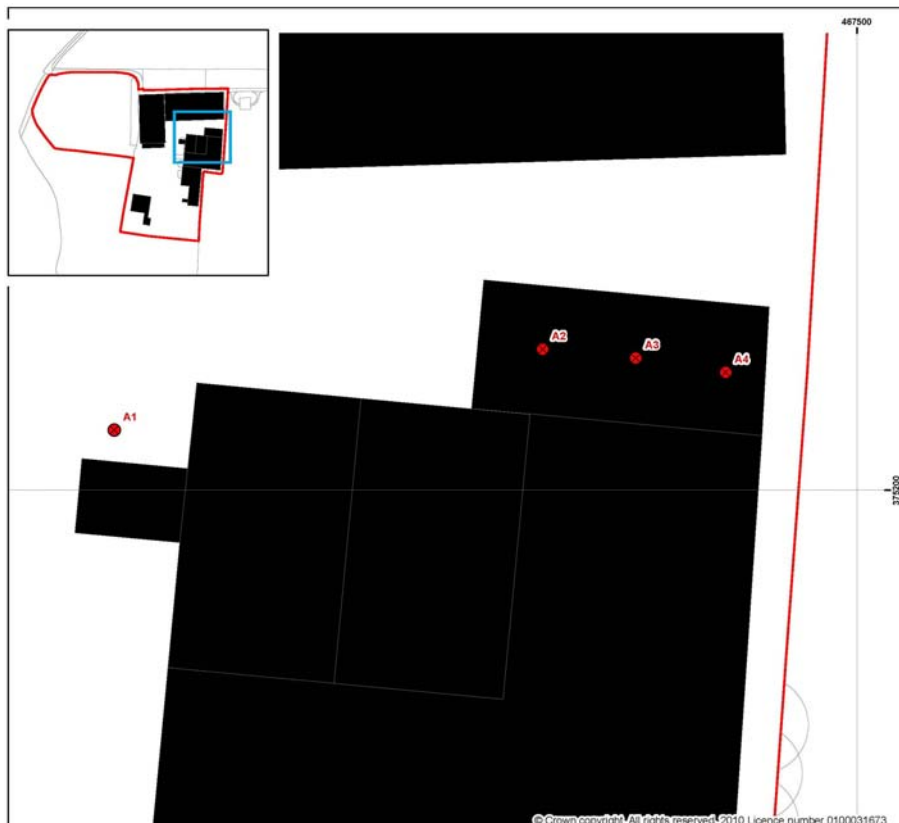
TEF schemes for dioxin-like PCBs			
Congener	WHO-TEF		
	2005	1997/8	
	Humans / mammals	Fish	Birds
Non-ortho PCBs			
3,4,4',5-TCB (81)	0.0001	0.0005	0.1
3,3',4,4'-TCB (77)	0.0003	0.0001	0.05
3,3',4,4',5 - PeCB (126)	0.1	0.005	0.1
3,3',4,4',5,5'-HxCB(169)	0.03	0.00005	0.001
Mono-ortho PCBs			
2,3,3',4,4'-PeCB (105)	0.00003	<0.000005	0.0001
2,3,4,4',5-PeCB (114)	0.00003	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.00003	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.00003	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.00003	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.00003	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00003	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.00003	<0.000005	0.00001

Schedule 7 - Site plan



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Location of Emission Points A1 – A4



END OF PERMIT