creating a better place

Environment Agency

The Site Manager
MVV Environment Ridham Limited
Ridham Biomass Power Plant
Ridham Dock
Sittingbourne
Kent
ME9 8SR

Our ref: EPR/TP3536CL/S003

Date: 05 November 2013

RECEIVED
- 7 NOV 2013

Dear Sir or Madam

Partial surrender of your permit is complete

Permit reference: EPR/TP3536CL/S003
Operator: MVV Environment Ridham Limited
Facility: Ridham Biomass Power Plant, Ridham Dock, Sittingbourne, Kent, ME9 8SR

Our determination of your application to surrender part of your permit is complete. In respect of that part of the permit to be surrendered, we're satisfied that the necessary measures have been taken to avoid a pollution risk resulting from the operation of the regulated facility, and to return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation. We therefore accept the partial surrender. This takes effect from **01 November 2013**.

I enclose a notice showing the changes to your permit. Please keep this in a safe place with your other permit records.

Rights of appeal
If you're not happy with any permit condition that has been imposed by the partial surrender you may appeal to the Secretary of State. You must make your appeal no later than six months after the date of the surrender notice.

Further information about making an appeal and the forms you will need are available from the Planning Inspectorate website or from the contact details below.

The Planning Inspectorate, Environment Appeals Room 3/25 Hawk Wing, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN.
Phone: 0117 3728726 Email: environment.appeals@pins.gsi.gov.uk

You must send written notice of the appeal and the documents listed below to the Secretary of State to the respective Planning Inspectorate address above. At the same time you must send us a copy of the notice and documents to

Victoria Balmer, Appeals Coordinator, Environment Agency, National Permitting Service, Knutsford Road, Latchford, Warrington, WA4 1HG.
Phone: 01925 542456 Email : victoria.balmer@environment-agency.gov.uk

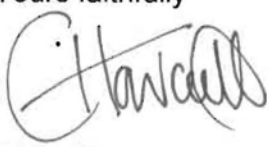
The documents are:

- a statement of the grounds of appeal;
- a copy of any relevant application;
- a copy of any relevant environmental permit;
- a copy of any relevant correspondence between the appellant and the regulator;
- a copy of any decision or notice which is the subject matter of the appeal; and
- a statement indicating whether you wish the appeal to be in the form of a hearing or dealt with by way of written representations.

You may withdraw an appeal by notifying the Secretary of State in writing and sending a copy of that notification to us.

If you have any questions about this permit please phone our Customer Contact Centre on 03708 506 506. They will put you in touch with a local area officer.

Yours faithfully



Carly Howcutt
Permitting Support Advisor

Surrender notice and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

MVV Environment Ridham Limited

Ridham Biomass Power Plant
Ridham Dock
Sittingbourne
Kent
ME9 8SR

Surrender application number

EPR/TP3536CL/S003

Permit number

EPR/TP3536CL

Ridham Biomass Power Plant
Permit number EPR/TP3536CL

Introductory note

This introductory note does not form a part of the notice

The following notice gives notice of the surrender in part and variation of an environmental permit.

The effect of the part surrender is to amend the Installation boundary to remove the area of land associated with the cooling water abstraction and discharge infrastructure. Following the operator's proposal to switch from water cooling to air cooling there is no requirement for the pipework to Ridham Dock to the north west of the site, or for the abstraction and discharge to the dock.

A consolidated permit has been issued with the agreement of the operator. This includes an update to Table S1.1 to change the activity schedule reference for the combustion activity. In view of the changes to the Environmental Permitting Regulations (EPR) as a result of implementing the Industrial Emissions Directive (IED), the Environment Agency considers that facilities burning waste that fall within IED Chapter IV should be classified as an incinerator or co-incinerator under Section 5.1 of EPR and not classified as a combustion activity under Section 1.1 of the regulations.

Any changes made as a result of the part surrender are set out in the schedules.

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

Status log of the permit		
Description	**Date**	**Comments**
Application EPR/NP3930TH/A001	Duly made 27/09/10	
Additional Information Schedule 5 notice.	Requested 13/12/10	General queries concerning: • Operational control Qu1 • Wood waste composition Qu 2,3 • Wood storage Qu 4 • Raw materials Qu 5-10 • Water use, storage and discharge Qu 11-16 • Risk assessment Qu 17-19 • Residues Qu 20 • Energy efficiency Qu 21 • Air emissions Qu 22-23 • Equipment failure and emergency preparedness Qu 24-28 • Process design Qu 29-32 • Monitoring and Sampling Qu 33 • Operational details Qu 34,35 • Flood risk and construction Qu 36-38
Schedule 5 notice response	Partial Response Received 14/01/11 Remainder Received 14&15/2/11	Where answers in the two responses conflict 14/15th February response supersedes 14th January response.
Additional Information Schedule 5 notice.	Requested 03/05/11	Further details of Ridham Dock hydrodynamic modelling requested for model checking.
Schedule 5 notice response	Received 20/05/11	Further interpretation and hydrodynamic modelling which supplements and, where relevant, supersedes previously received information.
Further clarification requested in response to questions arising from 20/05/11 Schedule 5 response.	Received by e-mail 11/07/11	Further interpretation and hydrodynamic modelling which supplements and, where relevant, supersedes previously received information.
Clarification requested of difference between annual waste acceptance and capacity of co-incinerator	Confirmation e-mail received 20/12/11	Confirmation that Operator is aware that export of wood from the installation is not permitted and the total annual waste wood acceptance is the capacity to burn plus the capacity to store declared in the application
Permit determined EPR/NP3930TH	22/12/11	
Application EPR/TP3536CL/T001 (full transfer of permit EPR/NP3930TH)	Duly made 15/06/12	Application to transfer the permit in full to Renewable Energy Projects Development Limited

Status log of the permit		
Description	**Date**	**Comments**
Transfer determined EPR/TP3536CL	28/06/12	Full transfer of permit complete
EPR/TP3536CL/V002 application for variation	Duly made 08/04/13	
EPR/TP3536CL/V002 variation determined	05/07/13	
Application EPR/TP3536CL/S003	Duly made 05/07/13	Application for part surrender
Partial surrender determined EPR/TP3536CL	01/11/13	Issue of part surrender notice and consolidated permit

End of Introductory note

Notice of surrender

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 and 25 of the Environmental Permitting (England and Wales) Regulations 2010 accepts the surrender in part and varies

Permit number
EPR/TP3536CL

issued to
MVV Environment Ridham Limited ("the operator")

whose registered office is

1 Park Row
Leeds
LS1 5AB

company registration number **07908193**

to operate a regulated facility at

Ridham Biomass Power Plant
Ridham Dock
Sittingbourne
Kent
ME9 8SR

to the extent set out in the schedules.

The notice shall take effect from 01/11/2013

Name	Date
Thomas Ruffell	**01/11/2013**

Authorised on behalf of the Environment Agency

Schedule 1 – changes to the permit

All conditions have been varied by the consolidated permit 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/TP3536CL

This is the consolidated permit referred to in the surrender notice for application EPR/TP3536CL/S003 authorising,

MVV Environment Ridham Limited ("the operator"),

whose registered office is
1 Park Row
Leeds
LS1 5AB

company registration number **07908193**

to operate an Installation at
Ridham Biomass Power Plant
Ridham Dock
Sittingbourne
Kent
ME9 8SR

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

Name	Date
Thomas Ruffell	**01/11/2013**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 For the following activities referenced in schedule 1, table S1.1 (Act1 to Act4), 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.

1.2.2 The operator shall provide and maintain steam and/or hot water pass-outs such that opportunities for the further use of waste heat may be capitalised upon should they become practicable.

1.2.3 The operator shall review the practicability of Combined Heat and Power (CHP) implementation at least every 2 years. The results shall be reported to the Agency within 2 months of each review.

1.3 Efficient use of raw materials

1.3.1 For the following activities referenced in schedule 1, table S1.1 (Act1 to Act 4), 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) For the following activities referenced in schedule 1, table S1.1 (Act1 to Act4), 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 table S2.2; and

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

(c) when separately collected for recycling, it is contaminated and otherwise destined for landfill.

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 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) any continuous emission limit value in schedule 3 table S3.1 is exceeded, or

(c) 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 The operator shall have at least one auxiliary burner 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 The operator shall record the beginning and end of each period of "WID abnormal operation".

2.3.9 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 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 monitoring devices are out of service 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;

2.3.11 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 Bottom ash and APC residues shall not be mixed.

2.3.13 The sewage treatment plant shall conform to all relevant British Standards in force at the time of installation.

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 tables S3.1and S3.2.

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 S3.4. 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 S3.2;

(b) process monitoring specified in table S3.3;

(c) residue quality in table S3.4.

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 The provisions for monitoring shall meet the requirements of BS EN 15259. 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 S3.1and S3.2 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 & 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 3.5.5 (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.

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.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity**
S5.1 A(1)(b)	The incineration of non-hazardous waste in a waste incineration plant or waste co-incineration plant with a capacity exceeding 3 tonnes per hour. [Co-incineration plant]	From receipt of waste to emission of exhaust gas and disposal of waste arising. Fuel types as specified in Table S2.1 of this permit. Waste types and quantities as specified in Table S2.2 of this permit.
Directly Associated Activities		
Electricity Generation and/or heat supply	Generation of electrical power using a steam turbine from energy recovered from the flue gases; and/or supply of heat.	
Back up electrical generator	For providing emergency electrical power to the plant in the event of supply interruption.	Low sulphur Diesel fuelled
Air cooled condensers	For condensing the off-steam from the turbine	
Other Activities		
Description	**Limits of Specified Activity**	
Discharge of secondary treated sewage effluent to North Side Ditch via outlet W3	Discharge via a Package treatment plant (sanitary systems) complying with BS EN 12566 or relevant British Standards in force at the time of installation. Monitored as specified in Table S3.2.	

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	Section 2 Non-Technical Summary Section 3 Best Available Techniques and Operating Techniques (BATOT) Including appendices: BATOT1 Environmental Management System BATOT3 Supply Water and Disposal BATOT4 Answers to questions in introduction to guidance The Incineration of Waste (EPR 5.01) BATOT5 Waste Codes BATOT6 Air Quality BATOT7 NOx Abatement BATOT8 Acid Gas Abatement Section 4 Accident Management Plan including Appendix A Risk Assessment Modelling Section 6 Site Condition Report Subsection 4 Section 7 Residue Management Plan Section 8 Heat Plan Copy of Planning Application Chapter 8 Noise and Vibration Copy of Planning Application Technical Appendix 9.1 Flood Risk Assessment	Duly Made 27/09/10
Response to Schedule 5 Notice dated 13/12/10	Wood supply source and type Question 1 Input Wood waste composition and quantities Questions 2 and 3 Wood storage Question 4 Raw Materials selection and storage Questions 6 - 10 Water use, storage and discharge Questions 11-16 Abatement methods Question 20, 22 Equipment failure and emergency preparedness Questions 24,- 28 Process design Questions 29 - 32 Monitoring and Sampling Question 33 Site EMS Question 35 Installation boundary Question 37	14/01/11 and 14&15/02/11 Where answers in the two responses conflict 14/15th February response supersedes 14th January response.
Clarification requested of difference between annual waste acceptance and capacity of co-incinerator	Confirmation that Operator is aware that export of wood from the installation is not permitted and the total annual waste wood acceptance is the capacity to burn plus the capacity to store declared in the application	Confirmation e-mail received 20/12/2011
Variation application EPR/TP3536CL/V002	Application forms Part C2 & C3 and relevant supporting information	08/04/13

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The Operator shall submit a written report to the Agency on the commissioning of the Installation. 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.
IC2	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 (NOx) 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 NOx and N2O emissions that can be achieved under optimum operating conditions. The report shall also provide details of the optimisation (including dosing rates) for the control of acid gases and dioxins	Within 4 months of the completion of commissioning.
IC3	The Operator shall carry out an assessment of the impact of emissions to air of Arsenic, Nickel and Chromium (VI). A report on the assessment shall be made to the Environment Agency. Emissions monitoring data obtained during the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the Application. An assessment shall be made of the impact of each metal against the relevant EQS/EAL. In the event that the assessment shows that an EQS/EAL can be exceeded, the report shall include proposals for further investigative work.	15 months from commencement of operations
IC4	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. The report shall include verification of the CFD modelling submitted in response to Pre-operational condition PO5.	Within 4 months of the completion of commissioning.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC5	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.	Initial calibration report to be submitted to the Agency within 3 months of completion of commissioning. Full summary evidence compliance report to be submitted within 18 months of commissioning.
IC6	The Operator shall submit a written report to the Agency on the implementation of its Environmental Management System at the installation. This report shall compare the requirements and operation of the EMS against ISO14001 and EMAS.	Within 12 months of the date on which waste is first burnt.

Table S1.4 Pre-operational measures	
Reference	**Pre-operational measures**
PO1	Prior to the commencement of commissioning, the Operator shall send a summary of the site Environment Management System (EMS) to the 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 (including a Site Closure plan covering the key aspects outlined in Section 3 Best Available Techniques and Operating Techniques 5.1.2 of the Application). 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.
PO2	Prior to the commencement of commissioning, the Operator shall send a report to the Agency which will contain a comprehensive review of the options available for utilising the heat generated by the waste incineration process in order to ensure that it is recovered as far as practicable. The review shall detail any identified proposals for improving the recovery and utilisation of waste heat and shall provide a timetable for their implementation.
PO3	Prior to the commencement of commissioning, the Operator shall submit a written plan to the Agency for approval detailing the ash sampling protocol to be used for bottom/boiler ash; cyclone collected fly ash; and Air Pollution Control residues and in conformance to Agency Guidance. The plan shall be implemented in accordance with the Agency's written approval.
PO4	Prior to the commencement of commissioning; the Operator shall provide a written commissioning plan, including timelines for completion, for approval by the 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 Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.
PO5	After completion of furnace design and at least 3 months before commissioning the operator shall submit a written report to the Environment Agency of the Computerised Fluid Dynamics modelling used to demonstrate that the residence time and temperature requirements of the Waste Incineration Directive will be met and to identify the best practicable locations for temperature monitoring for validation and compliance. This report shall include the finalised design for flue gas recycling.
PO6	Prior to the commencement of commissioning, the Operator shall submit a written report to the Agency detailing the finalised waste acceptance procedures to be used at the site. The waste acceptance procedure 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 Environment Agency.

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Light Fuel Oil for auxiliary burners	< 0.1% sulphur content
Diesel for standby generator and vehicles	< 0.1% sulphur content

Table S2.2 Permitted waste types and quantities for co-incineration plant	
Maximum quantity	**181,800 Tonnes per annum. Blended Calorific Value 10-16 MJ/kg**
Waste code	**Description**
02	**WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 07	wastes from forestry
03	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
15	**WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 03	wooden packaging
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 02	**wood, glass and plastic**
17 02 01	wood
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03 (wood fraction only)
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE**
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes (wood fraction only)
19 05 02	non-composted fraction of animal and vegetable waste (wood fraction only)
19 05 03	off-specification compost (wood derived fraction only)
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 07	[wood other than that mentioned in 19 12 06
19 12 10	combustible waste (refuse derived fuel) (wood derived fraction only)
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**separately collected fractions (except 15 01)**
20 01 38	wood other than that mentioned in 20 01 37
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste (wood fraction only)
20 03	**other municipal wastes**
20 03 02	waste from markets (wood fraction only)
20 03 07	bulky waste (wood fraction only)

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)** [2]	**Reference period**	**Monitoring frequency**	**Monitoring standard or method** [3]
A1 [Emission point A1 on site plan at Schedule 7]	Particulate matter	Co-Incinerator exhaust gases	15 mg/m³	daily average	Continuous measurement	BS EN 15267-3/ BS EN 14181
A1	Total Organic Carbon (TOC)	Co-Incinerator exhaust gases	15 mg/m³	daily average	Continuous measurement	BS EN 15267-3/ BS EN 14181
A1	Hydrogen chloride	Co-Incinerator exhaust gases	15 mg/m³	daily average	Continuous measurement	BS EN 15267-3/ BS EN 14181
A1	Hydrogen fluoride	Co-Incinerator exhaust gases	3 mg/m^3	periodic over minimum 1-hour period	Quarterly in first year Then Bi-annual	BS ISO 15713
A1	Carbon monoxide	Co-Incinerator exhaust gases	75 mg/m^3	daily average	Continuous measurement	BS EN 15267-3/ BS EN 14181
A1	Sulphur dioxide	Co-Incinerator exhaust gases	75 mg/m^3	daily average	Continuous measurement	BS EN 15267-3/ BS EN 14181
A1	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	Co-Incinerator exhaust gases	300 mg/m^3	daily average	Continuous measurement	BS EN 15267-3/ BS EN 14181
A1	Cadmium & thallium and their compounds (total)	Co-Incinerator exhaust gases	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	Mercury and its compounds	Co-Incinerator exhaust gases	0.05 mg/m^3	periodic over minimum 30 minute, maximum 8 hour period	Quarterly in first year Then Bi-annual	BS EN 13211

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)** [2]	**Reference period**	**Monitoring frequency**	**Monitoring standard or method** [3]
A1	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total) [1]	Co-Incinerator exhaust gases	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	Ammonia (NH_3)	Co-Incinerator exhaust gases	No limit set	daily average	Continuous where CEM installed.	BS EN 15267-3/ BS EN 14181
A1	Nitrous oxide (N_2O)	Co-Incinerator exhaust gases	No limit set	daily average	Continuous where CEM installed.	BS EN 15267-3/ BS EN 14181
A1	Dioxins / furans (I-TEQ)	Co-Incinerator exhaust gases	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	Dioxin-like PCBs (WHO-TEQ Humans / Mammals)	Co-Incinerator exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN/TS 1948-4
A1	Dioxin-like PCBs (WHO-TEQ Fish)	Co-Incinerator exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN/TS 1948-4
A1	Dioxin-like PCBs (WHO-TEQ Birds)	Co-Incinerator exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	BS EN/TS 1948-4

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (including unit)** [2]	**Reference period**	**Monitoring frequency**	**Monitoring standard or method** [3]
A1	Specific individual poly-cyclic aromatic hydrocarbons (PAHs), as specified in Schedule 6.	Co-Incinerator exhaust gases	No limit set	periodic over minimum 6 hours, maximum 8 hour period	Quarterly in first year. Then Bi-annual	Procedure shall use BS ISO 11338-1 and BS-ISO 11338-2.
A1	Dioxins / furans (WHO-TEQ Humans / Mammals)	Co-Incinerator exhaust gases	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	Dioxins / furans (WHO-TEQ Fish)	Co-Incinerator exhaust gases	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	Dioxins / furans (WHO-TEQ Birds)	Co-Incinerator exhaust gases	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

[1] 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.

[2] See Schedule 6 Interpretation for co-incineration plant reference conditions for reporting concentration of substances.

[3] The Environment Agency MCERTS performance standards for Continuous Emission Monitoring apply the requirements of BS EN 15267-3.

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)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
W2 Discharge to east side ditch [marked Emergency Overflow on site plan at Schedule 7]	pH	Emergency overflow from Demineralisation Plant / Boiler System	6-9	Instantaneous	Prior to discharge	MCERTS compliant method [1]
W2 Discharge to east side ditch	Flow	Emergency overflow from Demineralisation Plant / Boiler System	No limit set	Instantaneous	During discharge	MCERTS compliant method [1]
W3 Waste water discharge to north side ditch [marked Small Package Plant on site plan at Schedule 7]	Maximum daily flow	Package treatment plant (sanitary systems) complying with BS EN 12566	Max $5m^3$/day	-	-	-
W3 Waste water discharge to north side ditch	Visual Appearance	Package treatment plant (sanitary systems) complying with BS EN 12566	The discharge must be clear	-	-	-
W3 Waste water discharge to north side ditch	Visual Appearance	Package treatment plant (sanitary systems) complying with BS EN 12566	The discharge must have no adverse visible effect on the receiving water, the bed of the watercourse or any plants or animals within the watercourse	-	-	-
W3 Waste water discharge to north side ditch	Visible oil and grease	Package treatment plant (sanitary systems) complying with BS EN 12566	No significant trace present	-	-	-

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)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
W6 Surface water discharge to east side ditch [marked Surface Water Discharge Point on site plan at Schedule 7]	Visible oil and grease	Site surface water run-off	No significant trace present	-	-	-

[1] Or as agreed in writing with the Environment Agency

Table S3.3 Process monitoring requirements				
Location or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
As identified in the Application	Wind Speed and Direction	Continuous	Anemometer	
Location close to the inner wall of Combustion Chamber post combustion zone	Temperature (° C)	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1	Exhaust gas temperature	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1	Exhaust gas pressure	Continuous	Traceable to national standards	As agreed in writing with the Agency.
A1	Exhaust gas oxygen content	Continuous	BS EN 15267-3	
A1	Exhaust gas water vapour content	Continuous	BS EN 15267-3	Unless gas is dried before analysis of emissions.

Table S3.4 Residue quality					
Emission point reference or source or description of point of measurement	**Parameter**	**Limit**	**Monitoring frequency**	**Monitoring standard or method** [1]	**Other specifications**
Bottom Ash/Boiler Ash	Loss on Ignition	<5%	Monthly in the first year of operation. Then Quarterly	Environment Agency ash sampling protocol.	
Bottom Ash/Boiler Ash	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	No limit set	Monthly in the first year of operation. Then Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
Bottom Ash/Boiler Ash	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	No limit set	Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	
APC Residues [2]	Metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds, dioxins/furans and dioxin-like PCBs.	No limit set	Monthly in the first year of operation. Then Quarterly	Sampling and analysis as per Environment Agency ash sampling protocol.	
APC Residues [2]	Total soluble fraction and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) soluble fractions	No limit set	Before use of a new disposal or recycling route	Sampling and analysis as per Environment Agency ash sampling protocol.	

[1] Or other equivalent standard as agreed in writing with the Environment Agency

[2] Also contains cyclone ash conveyed to the residue silo

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	Quarterly	1 Jan, 1 Apr, 1 Jul and 1 Oct
Emissions to water Parameters as required by condition 3.5.1	W2	Annually	1 Jan
Loss on ignition Parameters as required by condition 3.5.1	Bottom Ash/Boiler 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/Boiler 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/Boiler 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 [1]	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 [1]	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

[1] Also contains cyclone ash conveyed to the residue silo

Table S4.2: Annual production/treatment	
Parameter	**Units**
Total Waste Accepted on Site	tonnes
Total Waste Incinerated	tonnes
Electrical energy produced	MWhrs
Electrical energy exported	MWhrs
Thermal energy produced	MWhrs
Waste heat utilised by the installation	MWhrs
Waste heat utilised off site	MWhrs

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Electrical energy exported, imported and used at the installation	Quarterly	KWhrs / tonne of waste incinerated (dry basis)
Heat/Steam energy exported and used at the installation	Quarterly	KWhrs / tonne of waste incinerated (dry basis)
Light Fuel oil consumption	Quarterly	Kgs / tonne of waste incinerated (dry basis)
Mass of Bottom Ash/Boiler Ash produced	Quarterly	Kgs / tonne of waste incinerated (dry basis)
Mass of APC residues [1] produced	Quarterly	Kgs / tonne of waste incinerated (dry basis)
Mass of Other solid residues produced	Quarterly	Kgs / tonne of waste incinerated (dry basis)
25% Aqueous Ammonia / Urea consumption	Quarterly	Kgs / tonne of waste incinerated (dry basis)
Activated Carbon consumption	Quarterly	Kgs / tonne of waste incinerated (dry basis)
Sodium Bicarbonate/lime consumption	Quarterly	Kgs / tonne of waste incinerated (dry basis)
Water consumption	Quarterly	Litres / tonne of waste incinerated (dry basis)
Periods of WID abnormal operation	Quarterly	No of occasions and cumulative hours for current calendar year for each line.

[1] Also contains cyclone ash conveyed to the residue silo

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air (Particulates, TOC, HCl, CO, SO_x, NO_x, NH_3, N_2O for A1 emissions)	Standard Spreadsheet based Forms compatible with many CEMS systems. Each quarter – 3 monthly form for the emission point for each of the 8 parameters. Example format shown in Form Air 1 for particulates with 15mg/m^3 limit. Or otherwise as agreed in writing by the Environment Agency	October 2011
Air (HF, Metals, Dioxins/furans/PCBs)	Form air 2 or otherwise as agreed in writing by the Environment Agency	October 2011
Water	Form water 1 or otherwise as agreed in writing by the Environment Agency	October 2011
Residue Analyses (composition)	Form Residues 1 or otherwise as agreed in writing by the Environment Agency	October 2011
Residue Analyses (solubility)	Form Residues 2 or otherwise as agreed in writing by the Environment Agency	October 2011
Performance indicators	Form Performance 1 or otherwise as agreed in writing by the Environment Agency	October 2011
Production indicators	Form Production 1 or otherwise as agreed in writing by the Environment Agency	October 2011

Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

Permit Number	**EPR/TP3536CL**
Name of operator	**MVV Environment Ridham Limited**
Location of Facility	**Ridham Dock, Sittingbourne, Kent, ME9 8SR**
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*" means 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;

"*boiler ash*" means ash collected from the boiler stage of the combustion gas lines

"*bottom ash*" means ash falling through or transported by the grate ;

"*CEM*" Continuous emission monitor

"*CEN*" means Commité Européen de Normalisation

"*cyclone ash*" and "*cyclone fly ash*" mean ash collected from the combustion gas lines by cyclone before the flue gas cleaning stage of abatement;

"*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 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..

"*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.

"*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).

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

"*ISO*" means International Standards Organisation.

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

"*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, 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.

"*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.

"*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 as described in the application or agreed in writing with the Environment Agency.

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

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

"*Waste 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)

"*WFD*" means Waste Framework Directive (Directive 2006/12/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 measurement devices during which the concentrations in the discharges into air 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.

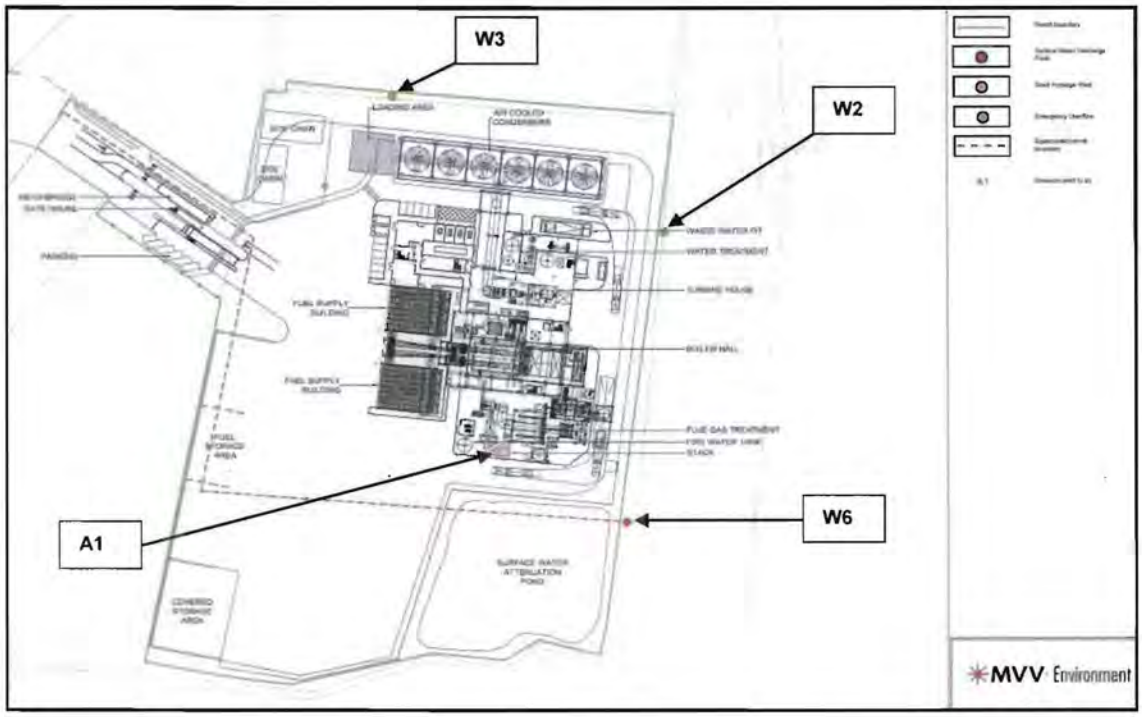
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means that in relation to gases from co-incineration plants the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 6% dry for all substances.

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

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



END OF PERMIT

Requirement for information
Environmental Permitting (England and Wales)
Regulations 2010 Regulation 60(1) Notice

Notice requiring information

To: Renewable Energy Projects Development Limited
Ridham Dock
SITTINGBOURNE
Kent
ME9 8SR

This Notice relates to the activities you operate that are authorised by the Permit Number(s) specified below (each permit number is shown with the appropriate operating address).

Permit Number	*Operator*	*Site Address*
EPR/TP3536CL	Renewable Energy Projects Development Limited	Ridham Dock SITTINGBOURNE Kent ME9 8SR

The Environment Agency, exercising our power under Regulation 60(1) of the Environmental Permitting (England and Wales) Regulations 2010, requires you to provide the information detailed in the attached Pollution Inventory Schedule in respect of each Permit referred to above:

- for the 2012 calendar year by 28 February 2013, and for every calendar year thereafter by 28th February of the following year, until further notice is given.

The information must be provided by submission of:

- an electronic return (this can be achieved by following the links to the web-based reporting system from the Environment Agency's Pollution Inventory homepage (www.environment-agency.gov.uk/pi)); or
- Environment Agency Pollution Inventory form (this is available from the Pollution Inventory web pages or in paper copy from any Environment Agency office).

When returning information on the Pollution Inventory form, this should be submitted to your local area office.

Signed

Damian Matthias
Customer Operations Manager

Date of signing: 03 September 2012

Customer services line: 03708 506 506
Email: enquiries@environment-agency.gov.uk
Environment Agency, Quadrant 2, 99 Parkway Avenue, Sheffield, S9 4WF

Pollution Inventory Schedule (1)

The Pollution Inventory (PI) requires you to report information relating to the annual releases[1] of substances specified in this Schedule, to air, water and land and off-site transfers of waste and of specified substances in wastewater[2]

The Environment Agency has just undertaken a substance review. As a result of this review the substances in this Schedule have been significantly reduced overall, but with the addition (or retention) of several proposed new Water Framework Directive Priority Substances (shown in italics). You are not required to report on the new substances in your 2012 submission: reporting of these is a requirement in your 2013 submission onwards. The reporting thresholds for these substances have not been determined yet and we will notify operators when they are available.

PI information must be submitted in accordance with the dates specified in the enclosed EPR Environmental Permitting (England and Wales) Regulations 2010 Regulation 60 (1) Notice.

The information required by this Schedule should be reported to us either by our web-based reporting system, access to which is available via our website at www.environment-agency.gov.uk/pi, or by completion of the paper Form PI-1.

This schedule is applicable to all EPR A1 installations except intensive agriculture installations and waste landfills. It is valid from 2012 until revised.

The Schedule, form and web based reporting system consist of the following parts:

Part 1 – About the operator and site
Part 2 – Releases to air
Part 3 – Releases to land
Part 4 – Releases to controlled waters
Part 5 – Off-site transfers in wastewater
Part 6 – Off-site waste transfers
Part 7 – Overseas waste transfers
Part 8 – Resource Efficiency Physical Index (REPI) metrics

The requirements of each part are set out overleaf.

[1] A release is "any introduction of pollutants into the environment as a result of human activity, whether deliberate or accidental, routine or non-routine, including spilling, emitting, discharging, injecting, disposing or dumping or through sewer systems without final waste-water treatment."

[2] Transfers in wastewater should include masses of PI substances in any wastes transferred via sewer or other means (eg tanker) direct to waste-water treatment works.

Part 1 About the operator and site

The information we require you to provide in Part 1, includes:

- Details about you and your operations – permit number, operator name and address, contact details and description of site activities;

- Any claim that information provided is confidential. If you wish to claim confidentiality for your Pollution Inventory or REPI data you must provide a full justification in the form of an objection notice. This must be provided to your site inspector who will issue you with a notice of determination to grant or decline the request. The Environment Agency does not grant confidentiality for release or emissions data except in cases of national security.

Purpose of Parts 2, 3, 4 and 5 of this Schedule

Parts 2, 3, 4 and 5 of this Schedule list the individual reportable substances for each environmental medium (air, water, land and wastewater) and the reporting thresholds that apply to those substances.

The information you will have to provide for each reportable substance includes:

1. **Total releases**

   Total releases = the sum of **all** releases from the 'reporting unit' (reporting unit describes EPR permitted facility), that is:
   annual mass/TEQ of substance released including *fugitive* **and** *notifiable* releases.

   Fugitive releases = releases not contained at source.
   Notifiable releases = releases from unplanned and unpermitted/unauthorised operations, for example resulting from an emergency, accident etc., which require separate notification to us.

   - If the 'total releases' figure is below the reporting threshold, it should be reported as 'brt' (below reporting threshold);
   - The figures for releases to controlled waters and transfers in wastewater should be compared separately against the reporting thresholds;
   - For releases to controlled waters, the receiving media should be reported as either G = groundwater, R = river, E = estuary or S = sea;
   - 'n/a' (not applicable) should be entered against substances not released;
   - All releases should be reported in either kilotonnes 'kt', tonnes 't', kilograms 'kg', grams 'g' or milligrams 'mg' per year as appropriate.
   - Where a substance may be present but is not detected by the accepted analytical method it should be reported as n/a.

2. **Method of release determination**

   This requires identification of the method used to generate the reported releases and transfers, that is *M* = *Measurement*, *C* = *Calculation* or *E* = *Estimation*. Where the data reported is based on *Measurement* or *Calculation*, further details are required. Please refer to PI reporting guidance for more information about this requirement.

3. **Separate figure for any *notifiable* releases, where appropriate**

You are required to provide a separate figure for any notifiable releases (defined in paragraph 1 above).

Part 2 Releases to air

Reportable Substance: common name [alternative name]	**CAS no.**	**Reporting threshold in kg**
Inorganics		
Ammonia	7664-41-7	1,000
Asbestos	1332-21-4	1
Carbon dioxide	124-38-9	10 million
Carbon dioxide from qualifying renewable fuel sources (Reportable when the total amount of CO_2 released is above 10 million kg)	124-38-9	
Carbon monoxide	630-08-0	100,000
Hydrogen cyanide	74-90-8	100
Nitrous oxide	10024-97-2	10,000
Sulphur hexafluoride	2551-62-4	10
Organics		
Aldrin	309-00-2	1
Anthracene	120-12-7	10
Benzene	71-43-2	1,000
Benzo(a)pyrene	50-32-8	1
Benzo(b)fluoranthene	205-99-2	1
Benzo(k)fluoranthene	207-08-9	1
Butadiene [1,3-Butadiene]	106-99-0	100
Carbon tetrachloride [Tetrachloromethane]	56-23-5	10
Chlordane	57-74-9	1
Chlordecone	143-50-0	1
Chloroform [Trichloromethane]	67-66-3	100
Dichlorodiphenyltrichloroethane (DDT)	50-29-3	1
Dichloromethane [DCM, Methylene chloride]	75-09-2	1,000
Dieldrin	60-57-1	1
Di(2-Ethylhexyl)phthalate [DEHP]	117-81-7	10
Endrin	72-20-8	1
Ethylene dichloride [1,2-Dichloroethane]	107-06-2	1,000
Ethylene oxide [1,2-Epoxyethane]	75-21-8	1,000
Heptachlor	76-44-8	1
Hexabromobiphenyl	36355-1-8	0.1
Hexachlorobenzene	118-74-1	1
Hexachlorocyclohexane – all isomers	608-73-1	1
Indeno(1,2,3-cd)pyrene	193-39-5	1
Lindane	58-89-9	1
Methane	74-82-8	10,000
Methyl chloroform [1,1,1-Trichloroethane]	71-55-6	10
Mirex	2385-85-5	1
Naphthalene	91-20-3	100
Pentachlorobenzene	608-93-5	1

Reportable Substance: common name [alternative name]	**CAS no.**	**Reporting threshold in kg**
Pentachlorophenol	87-86-5	1
Tetrachloroethane [1,1,2,2-Tetrachloroethane]	79-34-5	10
Tetrachloroethylene [PERC]	127-18-4	100
Toxaphene	8001-35-2	1
Trichlorobenzene - all isomers	12002-48-1	1
Trichloroethylene	79-01-6	1,000
Vinyl chloride	75-01-4	1,000
***Metals and compounds** expressed as mass of the metal only*		
Arsenic and compounds - as As	7440-38-2	1
Cadmium and compounds – as Cd	7440-43-9	1
Chromium and compounds - as Cr	7440-47-3	10
Copper and compounds - as Cu	7440-50-8	10
Lead and compounds - as Pb	7439-92-1	100
Mercury and compounds – as Hg	7439-97-6	1
Nickel and compounds – as Ni	7440-02-0	10
Selenium and compounds – as Se	7782-49-2	100
Zinc and compounds - as Zn	7440-66-6	100
***Other substance groups** reported as total mass unless otherwise stated*		
Chlorine and inorganic compounds - as HCl	7782-50-5	10,000
Chlorofluorocarbons (CFCs)	-	1
Dioxins and furans (PCDDs/PCDFs) as I-TEQ	-	0.00001
Dioxins and furans (PCDDs/PCDFs) as WHO-TEQ	-	0.00001
Fluorine and inorganic compounds - as HF	7782-41-4	1,000
Halons	-	1
Hydrochlorofluorocarbons (HCFCs)	-	1
Hydrofluorocarbons (HFCs)	-	100
Nitrogen oxides - NO and NO_2 as NO_2	-	100,000
Non-methane volatile organic compounds (NMVOCs)	-	10,000
Particulate matter - $PM_{2.5}$	-	1,000
Particulate matter - PM_{10}	-	1,000
Particulate matter – TSP	-	10,000
Perfluorocarbons (PFCs)	-	10
Polychlorinated biphenyls (PCBs)	1336-36-3	0.1
Polychlorinated biphenyls (PCBs) - as WHO-TEQ	1336-36-3	0.00001
Sulphur oxides - SO_2 and SO_3 as SO_2	-	100,000

Part 3 Releases to land

Reporting of releases to land is limited to deep injection and chemical land treatment. It is not for reporting releases to land 'resulting in benefit to agriculture or ecological improvement'

The reportable substances and reporting thresholds shown in the table below are required for the following releases to land:

- Disposal by land spreading within category D2 of Annex IIA of the Waste Framework Directive[3];
- Disposal by deep injection within category D3 of Annex IIA of the Waste Framework Directive[4].

These are required for releases within **or outside** the boundary of the permitted operation.

For other information required in respect of the 'total releases' of each reportable substance, please refer to the section 'Purpose of Parts 2, 3, 4 and 5 of this Schedule'.

Reportable Substance: common name [alternative name]	CAS no.	Reporting threshold in kg
Inorganics		
Asbestos	1332-21-4	1
Organics		
Alachlor	15972-60-8	1
Aldrin	309-00-2	1
Anthracene	120-12-7	1
Atrazine	1912-24-9	1
Benzene (Reportable if sum of BTEX[5] exceeds 200 kg)	71-43-2	200
Benzo(a)pyrene	50-32-8	1
Benzo(b)fluoranthene	205-99-2	1
Benzo(k)fluoranthene	207-08-9	1
Chlordane	57-74-9	1
Chlordecone	143-50-0	1
Chlorfenvinphos	470-90-6	1
Chlorpyrifos	2921-88-2	1
Dichlorodiphenyltrichloroethane (DDT)	50-29-3	1
Dichloromethane [DCM, Methylene choride]	75-09-2	10
Dieldrin	60-57-1	1
Di(2-ethylhexyl)phthalate (DEHP)	117-81-7	1
Diuron	330-54-1	1
Endosulfan	115-29-7	1
Endrin	72-20-8	1
Ethylbenzene (Reportable if sum of BTEX[5] exceeds 200 kg)	100-41-4	200
Ethylene dichloride [1,2-Dichloroethane]	107-06-2	10
Ethylene oxide [1,2-Epoxyethane]	75-21-8	10
Heptachlor	76-44-8	1
Hexabromobiphenyl	36355-1-8	0.1
Hexachlorobenzene (HCB)	118-74-1	1
Hexachlorobutadiene	87-68-3	1
Hexachlorocyclohexane - all isomers	608-73-1	1
Indeno(1,2,3-cd)pyrene	193-39-5	1
Isoproturon	34123-59-6	1

[3] Annex I of the Waste Framework Directive 2008/98/EC contains a list of disposal operations, which includes category D2 "Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)";
[4] Annex I of the Waste Framework Directive 2008/98/EC contains a list of disposal operations, which includes category D3 "injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)".
[5] BTEX is benzene, toluene, ethylbenzene, and xylenes

Reportable Substance: common name [alternative name]	CAS no.	Reporting threshold in kg
Lindane	58-89-9	1
Mirex	2385-85-5	1
Naphthalene	91-20-3	10
Pentachlorobenzene	608-93-5	1
Pentachlorophenol (PCP)	87-86-5	1
Simazine	122-34-9	1
Toluene (Reportable if sum of BTEX exceeds 200 kg)	108-88-3	200
Toxaphene	8001-35-2	1
Trifluralin	1582-09-8	1
Vinyl chloride	75-01-4	10
Xylene – all isomers (Reportable if sum of BTEX exceeds 200 kg)	1330-20-7	200
***Metals and compounds** expressed as mass of the metal only*		
Arsenic and compounds – as As	7440-38-2	5
Cadmium and compounds – as Cd	7440-43-9	5
Chromium and compounds - as Cr	7440-47-3	50
Copper and compounds – as Cu	7440-50-8	50
Lead and compounds – as Pb	7439-92-1	20
Mercury and compounds – as Hg	7439-97-6	1
Nickel and compounds - as Ni	7440-02-0	20
Zinc and compounds – as Zn	7440-66-6	100
***Other substance groups** reported as total mass unless otherwise stated*		
Brominated diphenylethers – penta-, octa- and deca-BDE	-	1
Chlorides – as Cl	16887-00-6	2 million
Cyanides – as CN	57-12-5	50
Dioxins and furans (PCDDs/PCDFs) – as I-TEQ	-	0.0001
Dioxins and furans (PCDDs/PCDFs) as WHO-TEQ		0.0001
Fluorides – as F	16984-48-8	2,000
Halogenated organic compounds – as AOX	-	1,000
Nitrogen – total	-	50,000
Nonylphenols and nonylphenol ethoxylates	-	1
Organotin compounds - as Sn	-	50
Phenols – phenol and simple substituted phenols as C	108-95-2	20
Phosphorus – total	-	5,000
Polychlorinated biphenyls (PCBs)	1336-36-3	0.1
Polychlorinated biphenyls as WHO-TEQ	-	0.0001
Short chain (C_{10-13}) chlorinated paraffins (SCCPs)	85535-84-8	1
Tributyltin and compounds – as TBT	56573-85-4	1
Triphenyltin and compounds – as TPT	668-34-8	1

Parts 4 and 5 Releases to controlled waters & transfers in wastewater

The figures for releases to controlled waters and transfers in wastewater should be compared separately to the reporting threshold.

Reportable Substance: common name [alternative name]	CAS no.	Reporting threshold in kg
Inorganics		
Asbestos	1332-21-4	0.1
Organics		
Alachlor	15972-60-8	0.1
Aclonifen	74070-46-5	To be advised
Aldrin	309-00-2	0.0005
Anthracene	120-12-7	0.1
Atrazine	1912-24-9	0.05
Benzene (Reportable if sum of BTEX exceeds 200 kg)	71-43-2	10
Benzo(a)pyrene	50-32-8	1
Benzo(b)fluoranthene	205-99-2	1
Benzo(g,h,i)perylene	191-24-2	0.1
Benzo(k)fluoranthene	207-08-9	1
Bifenox	42576-02-3	To be advised
Carbon tetrachloride [Tetrachloromethane]	56-23-5	1
Chlordane	57-74-9	0.1
Chlordecone	143-50-0	0.1
Chlorfenvinphos	470-90-6	0.1
Chloroform [Trichloromethane]	67-66-3	5
Chlorpyrifos	2921-88-2	0.1
Cybutryne	28159-98-0	To be advised
Cypermethrin	52315-07-8	0.005
Dichlorodiphenyltrichloroethane (DDT)	50-29-3	0.0005
Dichloromethane [DCM, Methylene chloride]	75-09-2	10
Dichlorvos	62-73-7	To be advised
Diclofenac	15307-86-5	To be advised
Dicofol	115-32-2	To be advised
Dieldrin	60-57-1	0.0005
Di(2-ethylhexyl)phthalate (DEHP)	117-81-7	0.1
Diuron	330-54-1	0.05
17-beta-estradiol (E2)	50-28-2	To be advised
17-alpha-ethinylestradiol (EE2)	57-63-6	To be advised
Endosulfan	115-29-7	0.0005
Endrin	72-20-8	0.0005
Ethylbenzene (Reportable if sum of BTEX exceeds 200 kg)	100-41-4	10
Ethylene dichloride [1,2-Dichloroethane]	107-06-2	10
Ethylene oxide [1,2-Epoxyethane]	75-21-8	1
Fluoranthene	206-44-0	0.1
Heptachlor *(and heptachlor epoxide)*	76-44-8	0.1
Hexabromobiphenyl	36355-1-8	0.1
Hexabromocyclododecane	25637-99-4	0.1
Hexachlorobenzene	118-74-1	0.01
Hexachlorobutadiene	87-68-3	0.1
Hexachlorocyclohexane – all isomers	608-73-1	0.01
Isodrin	465-73-6	0.0005
Isoproturon	34123-59-6	0.01
Lindane	58-89-9	0.1
Mirex	2385-85-5	0.1
Naphthalene	91-20-3	1

Reportable Substance: common name [alternative name]	CAS no.	Reporting threshold in kg
Pentachlorobenzene	608-93-5	0.1
Pentachlorophenol	87-86-5	0.05
Perfluorooctane sulphonic acid and its derivatives (PFOS)	1763-23-1	0.1
Quinoxyfen	124495-18-7	To be advised
Simazine	122-34-9	0.01
Terbutryn	886-50-0	To be advised
Tetrachloroethylene (PERC)	127-18-4	1
Toluene (Reportable if sum of BTEX exceeds 200 kg)	108-88-3	10
Toxaphene	8001-35-2	0.1
Trichlorobenzene – all isomers	12002-48-1	0.01
Trichloroethylene	79-01-6	1
Trifluralin	1582-09-8	0.001
Vinyl chloride	75-01-4	1
Xylene – all isomers	1330-20-7	10
***Metals and compounds** expressed as mass of the metal only*		
Arsenic and compounds - as As	7440-38-2	5
Cadmium and compounds - as Cd	7440-43-9	1
Chromium and compounds - as Cr	7440-47-3	20
Copper and compounds - as Cu	7440-50-8	20
Iron and compounds – as Fe **(FOR WALES ONLY)**	7439-89-6	1000
Lead and compounds - as Pb	7439-92-1	20
Mercury and compounds - as Hg	7439-97-6	0.1
Nickel and compounds - as Ni	7440-02-0	20
Zinc and compounds – as Zn	7440-66-6	100
***Other substance groups** reported as total mass unless otherwise stated*		
Brominated diphenylethers – *tetra-*, penta-, *hexa-*, *hepta-*, octa- and deca-BDE	-	0.1
Chlorides – as Cl	16887-00-6	2 million
Cyanides – as CN	57-12-5	50
Dioxins and furans (PCDDs/PCDFs) as I-TEQ	-	0.0001
Dioxins and furans (PCDDs/PCDFs) as WHO-TEQ		0.0001
Fluorides – as F	-	2,000
Halogenated organic compounds - as AOX	-	1,000
Nitrogen – total	-	50,000
Nonylphenols and nonylphenol ethoxylates	-	1
Octylphenols and octylphenol ethoxylates	1806-26-4	1
Organotin compounds - as Sn	-	5
Phenols – phenol and simple substituted phenols as C	108-95-2	20
Phosphorus – total	-	5,000
Polychlorinated biphenyls (PCBs)	-	0.001
Polychlorinated biphenyls (PCBs) as WHO-TEQ		0.0001
Short chain (C_{10-13}) chlorinated paraffins (SCCPs)	85535-84-8	0.1
Total organic carbon (TOC)	-	50,000
Tributyltin and compounds - as TBT	-	0.005
Triphenyltin and compounds – as TPT	668-34-8	0.1

For other information required in respect of the 'total releases' of each reportable substance, please refer to the section 'Purpose of Parts 2, 3, 4 and 5 of this Schedule'.

Part 6 Off-site waste transfers

Part 6 should include all off-site transfers of activity-related wastes **except** wastewaters which should be reported in Part 5 as chemical-specific transfers.

For off-site transfers of activity-related wastes, the following information should be provided:

- Weight, in tonnes;
- 6-figure European Waste Catalogue (EWC) code[5];
- Waste Framework Directive (WFD) disposal and recovery (D&R) codes[6];
- Identification of the method used to generate the reported data, that is *M = Measurement*, *C = Calculation* or *E = Estimation*, including further details of any *Measurement* or *Calculation* method used.

The following points should also be noted:

- Any wastes already reported in Part 3 - Releases to land (i.e. disposal activities D2 - Land treatment and D3 - Deep injection) should be excluded;
- All hazardous waste transfers should be reported regardless of tonnage;
- Other wastes transferred off-site should be reported where the total transferred exceeds 5 tonnes, otherwise report 'brt' (below reporting threshold) for each category where a transfer occurs;

For any transfers involving the Transfrontier Shipment of Waste (TFS) for recovery additional details, including the name and address of the recoverer and the address of the actual recovery site receiving the transfer, are required. Please refer to PI reporting guidance for more information about how to report TFS.

Part 7 – Overseas Waste Transfer

Part 7 should include any activity-related hazardous waste that is sent overseas for disposal or recovery.

The following information should be provided:

- Total Weight in tonnes
- Identification of the method used to generate the reported data, that is *M = Measurement*, *C = Calculation* or *E = Estimation*, including further details of any *Measurement* or *Calculation* method used.
- Name and address of the recoverer/disposer and the address of the site that is receiving the waste.

Part 8 Resource Efficiency

Please complete either section 1, 2 or 3.

[5] EWC codes: these represent the types of waste as defined in the European Waste Catalogue (EWC);
[6] WFD disposal and recovery (D&R) codes: these represent the methods of disposal and recovery as defined operations listed in Annex II to the Directive.

Section 1 – Approved schemes

If you are reporting under an approved scheme (a scheme administered by a third party that provides information concerning your resource efficiency and has been formally agreed with the Environment Agency) please provide the following details;

Name of scheme	Your reference / membership number

OR

Section 2 – Alternative to REPI reporting

Please answer the questions in the table below;

Metric	Y/N	Comments
A. Do you have policies and procedures in place for resource efficiency?		
B. Do you have systems in place to monitor compliance with procedures for resource efficiency?		
C. Have you set Key Performance Indicators (KPIs) to assess performance?		
D. Are you achieving your KPIs?		
Please enter your ranking using the following scale; (1) You have answered 'yes' to points A to D above. (2) You have answered 'yes' to points A to C above, and provided explanation on why KPIs were not achieved for point D. (3) Any other response.	(1, 2, or 3)	
Please provide any further explanation you wish;		

OR

Section 3 – REPI reporting

Further information and guidance notes on interpreting the REPI metrics can be found on our website under Business and Industry, Environmental Topics, Resource Efficiency.

Metric	Unit (per annum)	Definition
1. Commercial output		
a) Total output from the economic activity	tonnes, or MWh for commercial electricity products	The annual quantity of commercial product and by-products manufactured.
2. Raw materials consumption		

Metric	Unit (per annum)	Definition
a) Gross total raw materials consumption	tonnes	The annual quantity of raw materials imported and directly consumed by the manufacturing installation. Include all materials, i.e. virgin raw materials; manufactured materials; wastes, by-products or recovered materials.
b) Net total raw materials consumption	tonnes	The annual quantity of imported materials excluding waste, by-products or recovered materials. *Reporting is optional*
3. Energy consumption		
a) Gross total energy consumption	MWh	The annual quantity of fuel, public supply electricity and other energy from all sources directly consumed by the installation. (a) = (b) + (d) + (e) + (f) + (g) + (heat/steam imports).
(b) Grid Electricity consumption	MWh	The annual quantity of grid electricity directly consumed by the installation.
c) Electricity production	MWh	The annual quantity of electricity exported to the grid.
d) Gas consumption	MWh	The annual quantity of gas directly consumed by the installation.
e) Oil consumption	MWh	The annual quantity of oil directly consumed by the installation
f) Coal consumption	MWh	The annual quantity of coal directly consumed by the installation
g) Non-fossil energy and fuel consumption	MWh	The annual quantity of non-fossil energy and fuel directly consumed e.g.: • imported waste, by-products or recovered materials; • the manufacturing process's own waste, by-products or recovered materials; • biomass • water and wave energy *Reporting is optional*
h) Net total energy use	MWh	The annual quantity of fuel and public supply electricity from all sources directly consumed by the installation, minus the annual quantity of energy which is produced by the installation and exported to be used off-site, e.g. exports of electricity, heat, steam. (h) = (a) – (c) – (heat/steam exports).
4. Water consumption		
a) Gross total water use	m^3	The annual quantity of water from all sources directly used in the installation. Calculate as 4(a) = 4(c) + 4(d).
b) Net water use	m^3	Total water used minus water returned directly to the environment without off-site treatment.
c) mains	m^3	The annual quantity of mains water directly used in the installation.
d) Direct abstraction	m^3	The annual quantity of groundwater (borehole) and surface water directly used in the installation.

Metric	Unit (per annum)	Definition
5. Waste production		
a) Gross total waste production (tonnes per annum)	tonnes	The annual quantity of waste arising from all process-related activities and transferred off-site for disposal or recovery.
b) Hazardous waste transferred for disposal	tonnes	The annual quantity of hazardous waste arising and transferred off-site for disposal.
c) Hazardous waste transferred for recovery	tonnes	The annual quantity of hazardous waste arising and transferred off-site for recovery.
d) Non-hazardous waste transferred for disposal	tonnes	The annual quantity of non-hazardous waste arising and transferred off-site for disposal.
e) Non-hazardous waste transferred for recovery	tonnes	The annual quantity of non-hazardous waste arising and transferred off-site for recovery.
f) Net total waste production	tonnes	Total waste transferred off-site for disposal: i.e. 5(b) plus 5(d).