

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

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Shanks Waste Management Limited

Frog Island Waste Management Facility  
Creek Way  
Rainham  
RM13 8EN

Variation application number

EPR/ZP3533BS/V006

Permit number

EPR/ZP3533BS

# Frog Island Waste Management Facility

## Permit number EPR/ZP3533BS

### Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

The operator, Shanks Waste Management Limited, have applied to vary, modernise and consolidate their environmental permit (EPR/ZP3533BS). The variation element of their application relates to the amendment of the activities to reflect the regulation of the activities being undertaken on site including the use of a shredder and baler-wrapper for the preparation of RDF for onwards transportation, as well as consolidating the requested changes, within the Environmental Permit. The variation includes; a new scheduled activity, waste operations, directly associated activities, revision of waste throughput and storage capacities and addition of new waste codes. The updated permit also takes account of the change in operations since the time of the operator's initial application.

The installation is known as the Frog Island Lane Waste Management Facility and comprises of a Mechanical Biological Treatment (MBT) process and a Reuse and Recycling Centre (RRC) Materials Recovery Facility (MRF) to sort mixed waste originating from various Reuse and Recycling Centres (RRCs) operated by Shanks as part of the contract with the East London Waste Authority (ELWA). The operation of the site has changed significantly over time and as a result of greater waste segregation at the RRCs the MRF was decommissioned with the building used for RDF storage instead including the installation of a bailing plant and operation, to prepare RDF for export to mainland Europe for recovery under R1.

The site will now be regulated under the following activities:

- S5.4A(1)(b) - Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities: biological treatment
- S5.4A(1)(b) - Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities: pre-treatment of waste for incineration or co-incineration

The site accepts and treats unsorted household and commercial waste within a Mechanical Biological Treatment (MBT) system with a capacity of up to 192,000 tonnes per annum referred to as the Bio-MRF, this first bio-dries waste which is then passed into a mechanical sorting system to produce a number of recyclable and recoverable outputs that predominantly comprise of Solid Recovered Fuels (SRF) and Refuse Derived Fuels (RDF). The entire process is housed within a purpose-designed building with the aim of operating under at negative air pressure. This gives a high degree of climate control within the building thus preventing the uncontrolled escape of

dust, moisture, and odours. All air extracted from the building passes through a series of biological filters (bio-filters) on the roof before being discharged to the atmosphere.

The site's RRC-MRF has a throughput of 160,000 tonnes per annum and is a Materials Recovery Facility (MRF) where separately collected recyclables from the local waste authority are sorted and baled in preparation for transport to reprocessors.

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

<b>Status log of the permit</b>		
Description	Date	Comments
Application BT9372	Received 03/02/03	Duly made 07/02/03
Application contained a request for commercial confidentiality claim	Received 03/02/03	L. Hones Authorisation officer passed info to account manager T. Sadler
Notice of Determination under Regulation 31(3/5) provided to applicant	Sent 07/02/03	Confidentiality claim completed within the statutory period
Consultation commenced	Sent 12/02/03	
Consultation period ended	20/03/03	
Chase up letter to non responding consultees	Sent 23/04/03	
Advert appears in the London Gazette	Received 17/03/03	Copy received from Mouchel.
IPPC Check list if Advertisement completed	23/03/03	
Section 28 Notice served requiring completion of EP OPRA	Sent 23/05/03	
Reply to Section 28 Notice	Received 02/07/03	Information forwarded to National support team 03/07/03
Further information on the drainage	Received 23/09/03	Drainage now meets required standard.
Further information on RRC MRF	Received 26/09/03	Details of RRC MRF operations
Further information contained in a letter dated 21/10/03	Received 22/10/03	Commissioning information for Section 9 of permit
Monitoring information and details	Received 22/10/03	
Financial provision agreements Signed and returned	05/12/03	
Copy of planning Permission received	05/12/03	
Consolidated application	05/12/03	
Permit BT 9372	Determined 08/12/03	

**Status log of the permit**

Description	Date	Comments
Transfer application ZP3533BS from Shanks Waste Services Limited to Shanks Waste Management Limited	Determined 28/04/04	
Variation EPR/BT9372IY/V003	Duly made 27/04/09	
Minor Technical Variation EPR/BT9372IY	Issued 10/03/10	
Agency Initiated Variation Application EPR/ZP3533BS/V004	07/06/10	
Administrative Variation EPR/ZP3533BS issued	16/06/10	
Agency variation determined EPR/ZP3533BS/V005	06/03/14	Agency variation to implement the changes introduced by IED
Application EPR/ZP3533BS/V006	Duly made 05/06/2014	Application for variation & consolidation to modern permit conditions.
Schedule 5 Notice	Served 16/07/2014	Completed response received 24/09//2014.
Schedule 5 Notice	Served 04/08/2014	Completed response received 24/09//2014.
Schedule 5 Notice	Served 21/10/2014	Completed response received 09/03/2015.
Determined EPR/ZP3533BS/V006  (Billing ref. HP3634VK)	02/04/2015	Varied, modernised and consolidated permit issued to Shanks Waste Management Limited.

End of introductory note.

## Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

Permit number  
**EPR/ZP3533BS**

Issued to  
**Shanks Waste Management Limited** (“the operator”)

Whose registered office is  
**Dunedin House**  
**Auckland Park**  
**Milton Keynes**  
**Buckinghamshire**  
**MK1 1BU**

Company registration number **02393309**

To operate an installation at  
**Frog Island Waste Management Facility**  
**Creek Way**  
**Rainham**  
**RM13 8EN**

to the extent set out in the schedules.

The notice shall take effect from 02/04/2015

Name	Date
<b>A.J. Nixon</b>	<b>02 April 2015</b>

Authorised on behalf of the Environment Agency

## **Schedule 1**

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/ZP3533BS**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/ZP3533BS/V006 authorising,

**Shanks Waste Management Limited** (“the operator”)

whose registered office is

**Dunedin House**  
**Auckland Park**  
**Milton Keynes**  
**Buckinghamshire**  
**MK1 1BU**

company registration number **02393309**

to operate an installation at

**Frog Island Waste Management Facility**  
**Creek Way**  
**Rainham**  
**RM13 8EN**

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

Name	Date
<b>A.J. Nixon</b>	<b>02 April 2015</b>

Authorised on behalf of the Environment Agency



# Conditions

## 1. Management

### 1.1 General management

1.1.1 The operator shall manage and operate the activities:

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

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

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

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

### 1.2 Energy efficiency

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

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

### 1.3 Efficient use of raw materials

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

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

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

1.4.1 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 shall be clearly distinguished from any other waste on the site.

### **2.2 The site**

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

### **2.3 Operating techniques**

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 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.
- 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.

## **Waste battery and accumulator treatment**

- 2.3.6 Treatment of waste batteries and accumulators must meet the minimum requirements set out in Annex III, Part A of Directive 2006/66/EC of the European Parliament and of the Council on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC.

## **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.

# **3 Emissions and monitoring**

## **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Where a substance is specified in schedule 3 table S3.2 or S3.3 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.
- 3.1.4 Total annual emissions from the emission point(s) set out in tables schedule 3 S3.1, S3.2 and S3.3 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.
- 3.1.5 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

## **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

## **3.3 Odour**

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

## **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **3.5 Pests**

- 3.5.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

## **3.6 Monitoring**

- 3.6.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.2 and S3.3;
- 3.6.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.6.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.6.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2, S3.3 and S3.4 unless otherwise agreed in writing by the Environment Agency.

# **4 Information**

## **4.1 Records**

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

## **4.2 Reporting**

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

- 4.2.2 For the following activities referenced in schedule 1, table S1.1 (A1-A7) a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 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 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (i) inform the Environment Agency,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform the Environment Agency, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 [(a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit,] shall be confirmed by sending the

information listed in schedule 5 to this permit within the time period specified in that schedule.

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

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

Where the operator is a registered company:

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

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

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

In any other case:

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

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

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

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

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

- (a) a decision by the Secretary of State not to re-certify the agreement;
- (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
- (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

## **4.4 Interpretation**

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “without delay”, in which case it may be provided by telephone.



## Schedule 1 - Operations

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity and WFD Annex I and II operations</b>	<b>Limits of specified activity and waste types</b>
<b>A1</b>	S5.4A(1)(b) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities:	<b><u>i) biological treatment</u></b> <b>D8:</b> Biological treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D01 to D12. Treatment operation is via the 'BioCubi®' natural fermentation process. <b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents	No more than 12,000 tonnes of waste shall be stored within the Bio-MRF building at any one time. Wastes suitable for acceptance are limited to those specified in table S2.2.
<b>A2</b>		<b><u>ii) pre-treatment of waste for incineration or co-incineration</u></b> <b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents	Limited to shredding and blending of high calorific waste streams limited to the waste codes within table S2.2. No more than 1,200 tonnes of waste shall be stored within the RRC-MRF building at any one time.
<b>Directly Associated Activity</b>			
<b>A3</b>	Physio-chemical Treatment activities for the purposes of recycling	<b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents <b>R4:</b> Recycling/reclamation of metals and metal compounds <b>R5:</b> Recycling/reclamation of other inorganic compounds	Limited to, manual sorting, shredding, use of trommels, screening plant and magnet undertaken in relation to Activity reference A1 above.
<b>A4</b>	Bailing, compacting and repackaging	<b>D14:</b> Repackaging prior to submission to any of the operations number D01 to D13 <b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents <b>R4:</b> Recycling/reclamation of metals and metal compounds <b>R5:</b> Recycling/reclamation of other inorganic compounds	Undertaken in relation to Activity A1 above.
<b>A5</b>	Storage pending recovery or disposal	<b>R13:</b> Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity A1 above.

<b>Table S1.1 activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity and WFD Annex I and II operations</b>	<b>Limits of specified activity and waste types</b>
		<b>D15:</b> Storage pending any of the operations number D01 to D14 (excluding temporary storage pending collection on the site where it is produced).	
<b>Waste Operations</b>			
<b>Activity reference</b>	<b>Description of activities for waste operations</b>	<b>Limits of activities</b>	
<b>A6</b>	<p><b>RRC-MRF: Treatment of non-hazardous waste for the purpose of recovery or disposal</b></p> <p><b>R13:</b> Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p><b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents</p> <p><b>R4:</b> Recycling/reclamation of metals and metal compounds</p> <p><b>R5:</b> Recycling/reclamation of other inorganic compounds</p> <p><b>D15</b> Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p>	<p>Transfer operations shall be limited to: Transfer consisting of manual sorting, manual separation, use of trommels and screening of waste into different components, repackaging and bailing of some wastes for disposal or recovery. No more than 2,500 tonnes of waste shall be stored within the building at any one time. Limited to the waste codes within table S2.2.</p>	
<b>A7</b>	<p><b>Treatment of non-hazardous gully detritus for the purpose of recovery</b></p> <p><b>R13:</b> Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p><b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents</p> <p><b>R5:</b> Recycling/reclamation of other inorganic compounds</p>	<p>Treatment activity shall only comprise of dewatering. No more than 50 tonnes of waste shall be stored within the gully detritus bay at any one time. Limited to the waste codes within table S2.2.</p>	

**Table S1.2 Operating techniques**

<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application BT9372	The response to question B2.1 of the application form given in Schedule 5 of the document Frog Island Facility/48744/CO-498/Final/6 <sup>th</sup> January 2003	03/02/2003
Application BT9372	The response to question B2.1 of the application form given in Schedule 5 of the document Frog Island Facility/48744/CO-498/Final/6 <sup>th</sup> January 2003	26/09/2003
Application BT9372	The response to question B2.3 given in Section 7 of the document Frog Island Facility/48744/CO-498/Final/6 <sup>th</sup> January 2003	29/09/2003
Substantial Variation Application EPR/ZP3533BS/V006	Form EPC: Application for an environmental permit – Part C3 varying a bespoke installation permit, Question 3	05/06/2014
Substantial Variation Application EPR/ZP3533BS/V006	Supporting document; PPC Application – Frog Island Facility 48744/CO2-498/Amended 1/3/06, March 2014	05/06/2014
Substantial Variation Application EPR/ZP3533BS/V006	Frog Island RRC MRF – FI-RRC-OP013 Operating Procedure – Small WEEE collections	09/03/2015
Substantial Variation Application EPR/ZP3533BS/V006	Frog Island Odour Management Plan, March 2015	09/03/2015
Substantial Variation Application EPR/ZP3533BS/V006	Schedule 5 response	09/03/2015

**Table S1.3 Improvement programme requirements**

<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IC 1	<p>The operator shall provide a report assessing the performance and short term variations in emission concentrations from the Biofilters and Baghouse Filters as part of the commissioning phase of the Frog Island Waste Management Facility. The date and duration of the commissioning phase is to be agreed in writing with the Environment Agency before waste is received at the facility.</p> <p>Following the completion of the commissioning phase the operator shall submit confirmation of the BAT calculation to the Environment Agency.</p>	Completed
IC 2	<p>For a period of 12 months from the end of the commissioning phase, emissions to sewer shall be monitored monthly for the parameters listed in Table 23 of Section 16.2 of the document entitled Frog Island Facility 48744/CO2- 498/6<sup>th</sup> January 2003. In addition the discharge flow rate shall be monitored at the same time using a flow proportional sampler to create a 24 hour composite sample.</p> <p>Within one month of the end of this period a report shall be submitted to the Environment Agency documenting the values recorded for each month to establish that BAT is being achieved for the facility.</p>	Completed

## Schedule 2 - Waste types, raw materials and fuels

**Table S2.1 Raw materials and fuels**

Raw materials and fuel description	Specification
-	-

**Table S2.2 Permitted waste types and quantities**

<b>Maximum quantity</b>	Annual throughput of waste at the Bio-MRF must be no more than 192,000 tonnes per annum Annual throughput of waste for pre-treatment for incineration or co-incineration must be no more than 35,000 tonnes per annum Annual throughput of waste at the RRC-MRF must be no more than 160,000 tonnes per annum
<b>Waste code</b>	<b>Description</b>
<b>15</b>	<b>WASTE PACKAGING; ABSORBENTS, WIPING COLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED</b>
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste)</b>
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile packaging
<b>16</b>	<b>WASTES NOT OTHERWISE SPECIFIED IN THE LIST</b>
<b>16 01</b>	<b>end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 6 06 and 16 8)</b>
16 01 03	end-of-life tyres
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>
<b>17 05</b>	<b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>
17 05 04	Soil and stones other than those mentioned in 17 05 03
<b>19</b>	<b>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</b>
<b>19 05</b>	<b>wastes from aerobic treatment of solid wastes</b>
19 05 01	non-composted fraction of municipal and similar wastes
19 05 99	Wastes from the aerobic treatment of waste not otherwise specified, specifically limited to one or more rejected fractions from the Mechanical Biological Treatment of waste that does not fit any other category
<b>19 12</b>	<b>Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

**Table S2.2 Permitted waste types and quantities**

<b>Maximum quantity</b>	<p>Annual throughput of waste at the Bio-MRF must be no more than 192,000 tonnes per annum</p> <p>Annual throughput of waste for pre-treatment for incineration or co-incineration must be no more than 35,000 tonnes per annum</p> <p>Annual throughput of waste at the RRC-MRF must be no more than 160,000 tonnes per annum</p>
<b>Waste code</b>	<b>Description</b>
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPERATELY COLLECTED FRACTIONS</b>
<b>20 01</b>	<b>separately collected fractions (except 15 01)</b>
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 33	Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
<b>20 03</b>	<b>other municipal wastes</b>
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste
20 03 99	municipal wastes not otherwise specified

## Schedule 3 – Emissions and monitoring

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

Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
EMPFGT 2 NGR: TQ 5095 8115	-	Baghouse Stack 1	-	-	-	-
EMPFGT 3 NGR: TQ 5096 8116	-	Baghouse Stack 2	-	-	-	-
EMPFGT 4 NGR: TQ 5095 8115	-	Group 1: Bio Filters	-	-	-	-
EMPFGT 5 NGR: TQ 5096 8111	-	Group 2: Bio Filters	-	-	-	-
EMPFGT 6 NGR: TQ 5094 8109	-	Group 3: Bio Filters	-	-	-	-

**Table S3.2 Point Source emissions to water (other than sewer) – emission limits and**

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
EMPFGT. 1. Emission to River Thames NGR: TQ 5084 8106	Biochemical Oxygen Demand [Note 1]	Roofs, internal site roadways and non-waste handling areas	30 mg/l [Note 3]	None	Quarterly	
EMPFGT. 1. Emission to River Thames NGR: TQ 5084 8106	Suspended Solids [Note 1]	Roofs, internal site roadways and non-waste handling areas	200 mg/l [Note 4]	None	Quarterly	
EMPFGT. 1. Emission to River Thames NGR: TQ 5084 8106	Oil or Grease [Note 2]	Roofs, internal site roadways and non-waste handling areas	No visible trace	None	Quarterly	

Note 1 – Sampling and analysis shall be carried out in accordance with the appropriate British Standard

Note 2 – Visual inspection shall be recorded in the site diary

Note 3 – measured after five days at 20 degrees centigrade with nitrification suppressed by the addition of allyl-thiourea)

Note 4 – measured after drying at 105 degrees centigrade

**Table S3.3 Process monitoring requirements**

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
None	-	-	-	

**Table S3.4 Annual limits**

Substance	Medium	Limit (including unit)
None	-	-

## 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 water Parameters as required by condition 3.6.1 BOD	EMPFGT.1	Annually	1 January
Emissions to water Parameters as required by condition 3.6.1 Suspended Solids	EMPFGT.1	Annually	1 January
Emissions to water Parameters as required by condition 3.6.1 Oil and Grease	EMPFGT.1	Annually	1 January

**Table S4.2: Annual production/treatment**

Parameter	Units
Waste throughput – Bio-MRF	Tonnes
Waste throughput – RRC-MRF	Tonnes
Waste throughput – for the purpose of pre-treatment for incineration or co-incineration	Tonnes

**Table S4.3 Performance parameters**

Parameter	Frequency of assessment	Units
Water usage	Annually	m <sup>3</sup>
Energy usage	Annually	MWh

**Table S4.4 Reporting forms**

Media/parameter	Reporting format	Date of form
Water	Form Water 1 or other form as agreed in writing by the Environment Agency	01/04/15
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	01/04/15
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	01/04/15

## Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

### Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

<b>(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</b>	
<b>To be notified within 24 hours of detection</b>	
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>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
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	



<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
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.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Schedule 6 - Interpretation

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

*“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.

*“background concentration”* means such concentration of that substance as is present in:

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

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

*“emissions to land”* includes emissions to groundwater.

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

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

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

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

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

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

*“Pests”* means *Birds, Vermin and Insects*.

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

*“recovery”* means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

*“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.

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

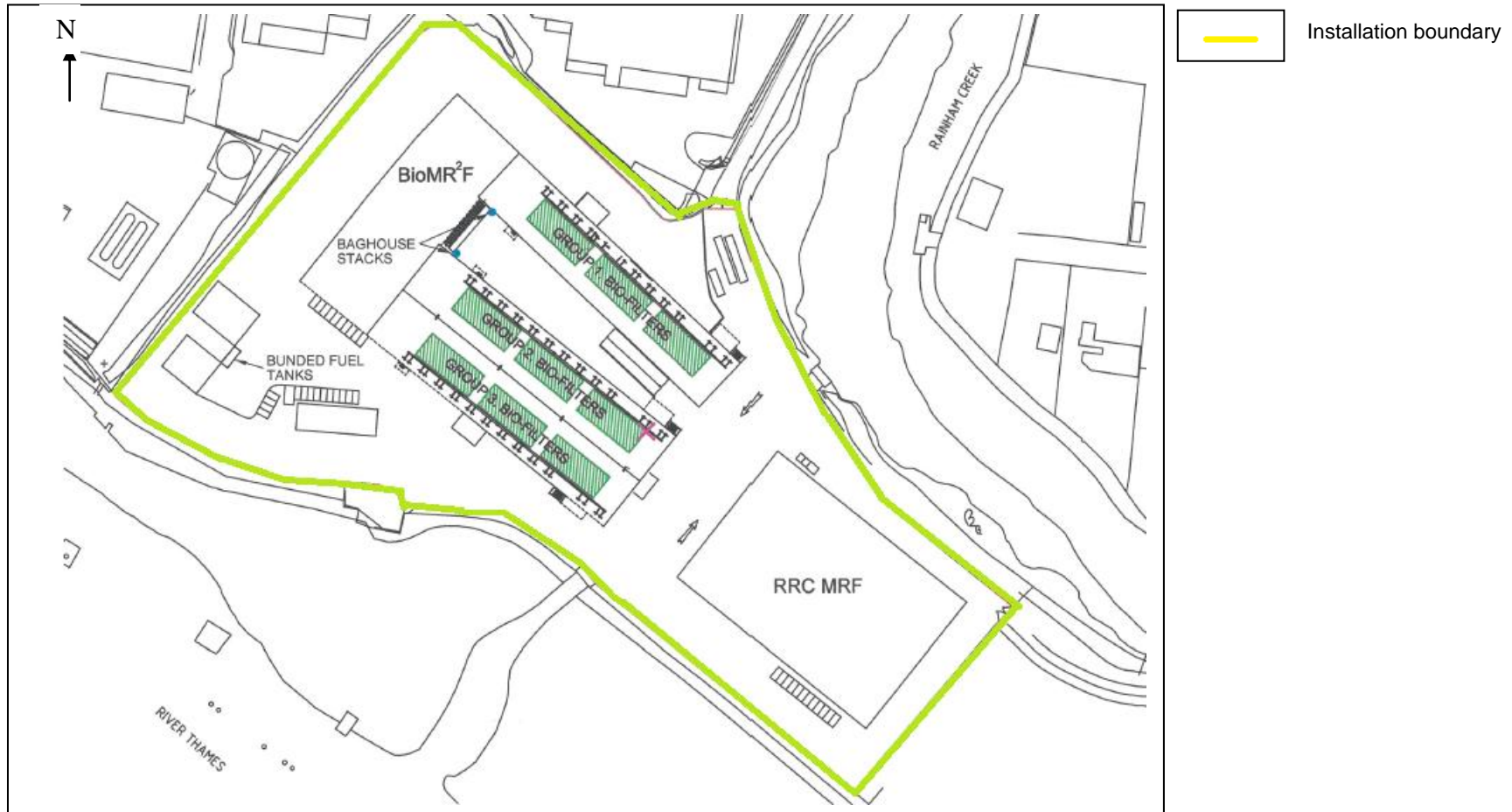
*“year”* means calendar year ending 31 December.

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

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

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

# Schedule 7 - Site plan



END OF PERMIT.