

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

European Metal Recycling Limited
European Metal Recycling - Fridge Destruction
Bentley Road South
Darlaston
West Midlands
WS10 8LW

Variation application number

EPR/GP3292FT/V007

Permit number

EPR/GP3292FT

European Metal Recycling - Fridge Destruction

Permit number EPR/GP3292FT

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 Industrial Emissions Directive (IED) was transposed in England and Wales by the Environmental Permitting (England and Wales) (Amendment) Regulations 2013 on 27 February 2013. This variation implements the changes brought about by the IED for “existing facilities operating newly prescribed activities” and completes the transition of this facility from a waste operation to an IED Installation.

EMR operate a fridge destruction plant and metal recycling site at Darlaston in the West Midlands to the north of Walsall Canal. The site is within 50m of human receptors and 7km from Cannock Extension Canal SAC. The facility operates a metal shredder with a capacity of more than 75 tonnes per day and there is storage of hazardous waste of more than 50 tonnes consisting of refrigeration units. These activities fall under the Industrial Emissions Directive:

- S5.4 A(1) (b) (iv) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components; and
- S5.6 A(1) (a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes.

The remaining waste operations on site include:

- Metal recycling.

The schedules specify the changes made to the permit.

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 |
| Permit granted EAWML 40099 | 28/04/03 | Permit granted to European Metal Recycling Limited |
| Variation issued EAWML 40099 | 07/11/08 | Environment Agency initiated variation to add WEEE conditions. |
| Variation issued EAWML 40099 | 11/12/09 | Environment Agency initiated variation to amend interpretation to WEEE conditions. |
| Variation issued EPR/GP3292FT/V004 | 05/05/11 | Full permit update, incorporation of activities previously operating under paragraph 45 exemption by adding waste codes and increasing annual throughput. |
| Consolidated permit issued EPR/GP3292FT/V005 | 05/05/11 | Consolidation of EAWML 40099 (EPR/GP3292FT) and EAWML 40110 (EPR/KP3292FZ). |

| Status log of the permit | | |
|---|-----------------------|--|
| Description | Date | Comments |
| Variation issued EPR/GP3292FT/V006 | 21/08/14 | Increase in treatment capacity and storage of recovered materials. |
| Variation application EPR/GP3292FT/V007 | Duly made 24/09/14 | Application to vary and update the permit to IED conditions. |
| Further information received | 08/02/17 | Additional waste codes. |
| Variation determined EPR/GP3292FT (Billing reference: FP3232WR) | 24/02/17 | Variation issued in modern condition format. |

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

Permit number

EPR/GP3292FT

Issued to

European Metal Recycling Limited ("the operator")

whose registered office is

**Sirius House
Delta Crescent
Westbrook
Warrington
Cheshire
WA5 7NS**

company registration number **02954623**

to operate regulated facilities at

**European Metal Recycling - Fridge Destruction
Bentley Road South
Darlaston
West Midlands
WS10 8LW**

to the extent set out in the schedules.

The notice shall take effect from 24 February 2017.

| Name | Date |
|---------------------|-------------------|
| Mike Jenkins | 24/02/2017 |

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an 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/GP3292FT

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/GP3292FT/V007 authorising,

European Metal Recycling Limited (“the operator”),

whose registered office is

**Sirius House
Delta Crescent
Westbrook
Warrington
Cheshire
WA5 7NS**

company registration number **02594623**

to operate an installation and waste operations at

**European Metal Recycling - Fridge Destruction
Bentley Road South
Darlaston
West Midlands
WS10 8LW**

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

| Name | Date |
|--------------|------------|
| Mike Jenkins | 24/02/2017 |

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

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 For the following activities referenced in schedule 1, table S1.1, A1 to A3, 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 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 to S1.5, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 to S1.5, or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 All activities shall take place on impermeable surfaces with sealed drainage, unless otherwise specified in Table S1.1 or agreed in writing with the Environment Agency.
- 2.3.4 Any raw materials or fuels listed in schedule 2, table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2, tables S2.2 and S2.3; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous properties associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.7 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.8 For the following activities referenced in schedule 1, table S1.1, A1 and A2, where any of the following situations arise, the operator shall, as soon as is practicable, cease the treatment of waste until normal operation can be restored:

- (a) failure of the contained environment; or
 - (b) breach of a relevant Lower Explosive Limit (LEL) or Limiting Oxygen Concentration (LOC).
- 2.3.9 Following the cessation of treatment under condition 2.3.8 the operator shall not recommence treatment unless:
- (a) the failed equipment is repaired and brought back into normal operation; and
 - (b) gas concentrations remain below any relevant lower explosive limit or limiting oxygen concentration.

2.4 Hazardous waste storage and treatment

- 2.4.1 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1, table S1.1 and appropriate measures are taken.

2.5 WEEE storage and treatment

- 2.5.1 Spillage collection facilities and, where appropriate, decanters and cleanser-degreasers shall be provided and used as necessary.
- 2.5.2 WEEE (disassembled spare parts, components and residues) shall be stored in areas provided with a weatherproof covering where appropriate or in containers providing a weatherproof covering where appropriate.
- 2.5.3 WEEE shall be treated using best available treatment, recovery and recycling techniques (BATRRRT).
- 2.5.4 All fluids contained within any WEEE shall be removed prior to further treatment.
- 2.5.5 As a minimum, the substances, preparations and components specified in table S1.3 shall be removed from any separately collected WEEE.
- 2.5.6 Separately collected components of WEEE specified in table S1.4 shall be treated in accordance with the methods specified in that table.
- 2.5.7 Any liquids including those in disassembled spare parts, batteries, capacitors containing PCBs/PCTs and any other hazardous waste shall be stored in suitable sealed and labelled containers.
- 2.5.8 Equipment shall be provided and used to record the weight of untreated WEEE accepted at, and components and materials leaving the site.

2.6 Refrigerator unit pre-destruction and destruction

- 2.6.1 The dismantling and destruction of refrigerator units shall take place in accordance with table S1.5.

2.7 Improvement programme

- 2.7.1 The operator shall complete the improvements specified in schedule 1, table S1.6 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.7.2 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 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

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

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

3.3 Odour

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

3.3.2 The operator shall:

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

3.4 Noise and vibration

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

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

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

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1 and S3.2; and
 - (b) process monitoring specified in table S3.3.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3, tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 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.

3.6 Pests

- 3.6.1 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.
- 3.6.2 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

- 3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.
- 3.7.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
 - (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

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

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

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

4.2 Reporting

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

4.2.2 For the following activities referenced in schedule 1, table S1.1, A1 to A3, 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 one month of the end of each year, 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 year.

4.3 Notifications

- 4.3.1 For the following activities referenced in schedule 1, table S1.1, A1 to A3, in the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 For the following activities referenced in schedule 1, table S1.1, A4 to A8, 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.
- 4.3.4 Any information provided under condition 4.3.3 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.5 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.
- 4.3.6 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.7 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.
- 4.3.8 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.9 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 For the following activities referenced in schedule 1, table S1.1, A1 to A3, in this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.
- 4.4.3 For the following activities referenced in schedule 1, table S1.1, A4 to A8, in this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 – Operations

| Table S1.1 activities | | | |
|--------------------------------------|---|---|---|
| Activity reference | Activity listed in Schedule 1 of the EP Regulations | Description of specified activity and WFD Annex I and II operations | Limits of specified activity and waste types |
| A1: Fridge Destruction – Green Plant | Section 5.3 A(1) (a) (ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment. | R3: Recycling/reclamation of organic substances which are not used as solvents R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials | Treatment of refrigeration units consisting of sorting, separation, grading, shredding, baling, compacting, crushing, granulation, cutting, condensing, and degassing in line the standards in Tables S1.3, S1.4 and S1.5. Treatment of refrigeration units shall be carried out within a building provided with weatherproof covering. Waste types suitable for acceptance are limited to those specified in Table S2.2. |
| A2: Fridge Destruction – Blue Plant | Section 5.3 A(1) (a) (ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment. | R3: Recycling/reclamation of organic substances which are not used as solvents R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials | Treatment of refrigeration units consisting of sorting, separation, grading, shredding, baling, compacting, crushing, granulation, cutting, condensing, and degassing in line the standards in Tables S1.3, S1.4 and S1.5. Treatment of refrigeration units shall be carried out within a building provided with weatherproof covering. Waste types suitable for acceptance are limited to those specified in Table S2.2. |
| A3: Storage of hazardous waste | Section 5.6 A(1) (a) Temporary storage of hazardous waste in a facility with a total capacity exceeding 50 tonnes pending any of the activities listed in Section 5.1, 5.2 and 5.3 | R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) | Storage of refrigeration units: Refrigeration units shall not be stored for more than 3 months without prior written approval from the Environment Agency. Free storage of refrigeration units shall not exceed a maximum storage height of 3.5 metres. |

| Table S1.1 activities | | | |
|---------------------------------------|--|---|--|
| Activity reference | Activity listed in Schedule 1 of the EP Regulations | Description of specified activity and WFD Annex I and II operations | Limits of specified activity and waste types |
| | | | <p>Storage capacity of refrigeration units shall not exceed 1170 tonnes at any one time.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p> <p>Storage of refrigerants and oils.</p> <p>All other hazardous waste storage pending treatment shall not exceed 6 months, without prior written approval from the Environment Agency.</p> |
| Directly Associated Activities | | | |
| A4 | Physical treatment for the purpose of recycling | <p>R3: Recycling/ reclamation of organic substances which are not used as solvents</p> <p>R4: Recycling/reclamation of metals and metal compounds</p> <p>R5: Recycling/reclamation of other inorganic materials</p> | <p>Pre-treatment consisting only of sorting, separation, grading, shearing, baling, compacting, crushing and cutting of metal wastes into different components for recovery.</p> <p>Post-treatment consisting only of sorting, separation and grading of shredded materials.</p> |
| A5 | Storage of processed materials, excluding temporary storage of hazardous waste under Section 5.6 A(1)(a) | R13: Storage of waste pending the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) | Storage of recovered fractions and shredder residue following treatment. |
| A6 | Raw materials storage | Storage of raw materials including, liquid petroleum gas, nitrogen, lubrication greases, hydraulic oils and diesel. | From the receipt of raw materials to despatch for use within the facility. |
| A7 | Site drainage discharge | Discharge of site drainage from storage and treatment areas to controlled waters. | Collected surface water to pass through oil interceptor to Walsall Canal at Surface Water Discharge Point as shown on the site plan in schedule 7. |

| Table S1.1 activities | | |
|------------------------------|---|---|
| Activity reference | Description of activities for waste operations | Limits of activities |
| A8: Metal Recycling | <p>R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)</p> <p>R4: Recycling/ reclamation of metals and metal compounds</p> | <p>Treatment consisting only of sorting, separation, grading, shearing, shredding, bailing, compaction, crushing, granulation or cutting of non-hazardous waste into different components for recovery.</p> <p>Treatment in shredders of metal waste for recovery (no more than 75 tonnes per day).</p> <p>The maximum quantity of hazardous waste (excluding refrigeration units) that can be accepted or stored at the site shall not exceed 50 tonnes at any one time.</p> <p>There shall be no treatment of lead acid batteries, other than sorting and separating from other wastes, and repackaging for third party processing.</p> <p>Subject to any other requirements of this permit wastes shall be stored for no longer than 3 years prior to recovery.</p> <p>Buildings, covered areas or containers shall meet the following requirements:</p> <ul style="list-style-type: none"> • buildings, covered areas, or containers shall be designed, constructed and maintained to prevent ingress of rain and surface water; • rain and uncontaminated surface water shall be kept separate from contaminated water and other liquids; • containers containing waste (excluding uncontaminated metal waste) shall be stored on an impermeable surface with sealed drainage system. <p>Uncontaminated ferrous metal wastes or alloys and uncontaminated non-ferrous metal wastes shall be stored on hard standing or an impermeable surface.</p> <p>Lead acid batteries shall be stored in containers with an impermeable, acid resistant base and a cover that prevents ingress of water.</p> <p>Waste types suitable for acceptance are limited to those specified in table S2.3.</p> |

| Table S1.2 Operating techniques | | |
|--|--|----------------------|
| Description | Parts | Date Received |
| Application EPR/GP3292FT/V007 | Section 2, 3, 4, 5 and 6 of the application document and the information contained in the non-technical summary. | 24/09/14 |
| EMR Darlaston assessment Darlaston Working Plan dated May 2014 | All parts as agreed by the Environment Agency | 09/06/14 |
| Darlaston Working Plan dated May 2014 | All parts as agreed by the Environment Agency | 09/06/14 |

Table S1.3 Substances, preparations and components to be removed from separately collected WEEE

- Capacitors containing polychlorinated biphenyls in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT)
- Mercury-containing components, such as switches or backlighting lamps
- Batteries
- Printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres
- Toner cartridges, liquid and paste, as well as colour toner
- Plastic containing brominated flame retardants
- Asbestos waste and components which contain asbestos
- Cathode ray tubes
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC), or hydrocarbons (HC)
- Gas discharge lamps
- Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps
- External electric cables
- Components containing refractory ceramic fibres as described in REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- Components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 of and the Annex I to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation
- Electrolyte capacitors containing “substances of concern” (height > 25mm, diameter > 25mm or proportionately similar volume)

Table S1.4 Specified Treatment Methods for separately collected components of WEEE

| Component | Specified Treatment |
|---|---|
| Cathode ray tubes | The fluorescent coating shall be removed |
| Gas discharge lamps | The mercury shall be removed |
| Equipment containing gases that are ozone depleting or have a global warming potential (GWP) above 15 such as those contained in foams and refrigeration circuits | The gases must be properly extracted and properly treated. Ozone depleting gases must be treated in accordance with Regulation (EC) No 1005/2009. |

Table S1.5 Standards for pre-destruction and destruction of refrigeration units

| | |
|--|---|
| Stage 1) Pre-destruction processing of waste refrigeration units | <p>The pre-destruction processing of refrigerator units shall be undertaken in a manner to ensure fugitive emissions from the removal of refrigerant and oil from the refrigeration cooling systems are collected.</p> <p>Drainage of the refrigeration cooling system shall be undertaken in a manner that results in the removal of at least 99% of the refrigerant and the oil from the cooling circuit.</p> |
|--|---|

Table S1.5 Standards for pre-destruction and destruction of refrigeration units

| | |
|---|--|
| | <p>Upon removal of compressor oil from the cooling system:</p> <p>The compressor oil shall be processed to ensure that the concentration of refrigerant in the oil is <0.9% w/w; or</p> <p>Where the compressor oil is not processed to remove dissolved refrigerant it shall be placed immediately in a suitable sealed container to prevent fugitive emissions and sent for further refrigerant recovery or destruction.</p> <p>Following the drainage of the cooling system, the compressor unit shall be removed from the refrigerator unit and placed into a suitable container that prevents fugitive emissions.</p> <p>Switches containing mercury or other hazardous components shall be removed from the unit and placed in a suitable container prior to unit destruction.</p> <p>All refrigerator units shall be drained of free water prior to destruction.</p> <p>Insulation panels shall be cut in a way that prevents or where that is not practicable, minimises dust and fugitive loss of blowing agent.</p> |
| <p>Stage 2) Refrigeration unit carcass and insulation panel destruction</p> | <p>Refrigeration unit carcasses and insulation panels shall not be subject to the destruction process unless processed to the appropriate pre-destruction processing standards specified in Section 1 above.</p> <p>The destruction of the refrigerator unit carcasses and insulation panels shall be undertaken in a contained environment that prevents fugitive losses of the blowing agent.</p> <p>Residual materials resulting from the destruction of refrigeration unit carcasses and insulation panels shall not be removed from the contained environment unless they meet the specified standards below:</p> <ul style="list-style-type: none"> • Metal - The quantity of foam remaining on the granulated metal after processing shall not exceed 0.5% w/w • Plastic - The quantity of foam remaining on the granulated plastic after processing shall not exceed 1% w/w • Foam - The quantity of residual blowing agents remaining in the polyurethane foam shall not exceed: <ul style="list-style-type: none"> – 0.5% w/w where foam is stored in a contained environment subject to further recovery or destruction – 0.2% w/w in other cases <p>All waters generated from the destruction operations shall be collected and stored in a sealed container to prevent fugitive emissions prior to disposal and recovery.</p> |

| Table S1.6 Improvement programme requirements | | |
|--|---|----------------------------|
| Reference | Requirement | Date |
| IP1 | <p>Submit a written plan to the Environment Agency for approval.</p> <p>The operator will submit for approval proposals for a comprehensive monitoring exercise to demonstrate that the stage 1 and stage 2 processing of refrigeration units does not give rise to fugitive releases to air of ozone depleting substances or hydrocarbons.</p> <p>Upon written approval of these proposals the operator will carry out the monitoring exercise and submit a report of the findings within 3 months.</p> <p>The operator will give the EA at least fourteen days' notice of the commencement of the monitoring exercise.</p> <p>The EA will be notified immediately if any fugitive releases are detected during the monitoring exercise.</p> | Completed |
| IP2 | <p>Submit a written plan to the Environment Agency for approval.</p> <p>The plan must contain detail of how the operator will ensure compliance with condition 3.5.3 either through receipt of MCERTS Accreditation or Certification or through the submission of an acceptable alternative monitoring method for approval by the Environment Agency.</p> <p>The plan shall be implemented in accordance with the Environment Agency's approval.</p> | Completed |
| IP3 | <p>The operator shall submit a written management system to the Environment Agency.</p> <p>The management system must ensure that all Installation Activities (reference A1-A7 in table S1.1) are undertaken in accordance with Best Available Techniques</p> <p>The Management system shall include:</p> <ul style="list-style-type: none"> (a) a clearly documented and auditable waste acceptance procedure which details: <ul style="list-style-type: none"> (i) assessment of potential in-feed including pre-acceptance checks to ensure that the wastes received are suitable for shredding, (ii) procedures for the identification, confiscation and repatriation of gas cylinders and other prohibited items, (iii) a dedicated waste reception area with suitably trained staff controlling inspection, reception and validation of wastes, and (iv) a dedicated quarantine area for wastes that are prohibited, awaiting full inspection, testing or removal; (b) clearly documented and auditable material handling procedures that ensure emissions including dust and noise from material handling are prevented or where that is not practicable minimised, and (c) clearly documented and auditable procedures for the management of shredder residues which ensure that: <ul style="list-style-type: none"> i) all residues are stored on impermeable surface with sealed drainage in a way that prevents or where that is not practicable, minimises emissions and prevents wind-blown dispersion, and ii) all residues are characterised and assessed for appropriate further processing, recovery or disposal. <p>The operator shall implement the management system in accordance with the Environment Agency's written approval.</p> | 6 months from permit issue |

| Table S1.6 Improvement programme requirements | | |
|--|--|----------------------------|
| Reference | Requirement | Date |
| IP4 | <p>The operator shall submit a written plan to the Environment Agency for approval that includes:</p> <ul style="list-style-type: none"> (a) proposals to undertake representative monitoring of the air discharged from the Green Plant Emission Point and the Blue Plant Emission Point including the parameters to be monitored, frequencies of monitoring and methods to be used; (b) proposals to undertake representative monitoring of the ambient air including the sampling locations, parameters to be monitored, frequencies of monitoring and methods to be used; (c) confirmation that a written report will be submitted to the Environment Agency for approval that includes: <ul style="list-style-type: none"> i) the results of an assessment of the impact of the emission to air from the site using the Environment Agency's 'H1 Environmental Risk Assessment' tool (or equivalent as agreed with the Environment Agency) based on the parameters monitored in (a) above; and ii) proposals for appropriate measures to mitigate the impact of the emission where the assessment determines they are significant, including emissions limits and monitoring and dates for implementation of individual measures; and iii) details of appropriate measures for the operation and maintenance of the abatement system to ensure that where emission limits are proposed they are met or, where emission limits are not required, emissions remain insignificant. <p>The operator shall carry out the monitoring in accordance with the Environment Agency's written approval.</p> | 6 months from permit issue |
| IP5 | <p>The operator shall submit a written monitoring plan to the Environment Agency for approval.</p> <p>The plan must contain proposals for a comprehensive monitoring exercise to demonstrate that the stage 1 and stage 2 processing of refrigeration units and insulation panels does not give rise to fugitive releases to air of refrigerant or blowing agent gases (i.e. CFCs, HCFCs, HFCs or HCs).</p> <p>The operator shall carry out the monitoring exercise and submit a report in accordance with the Environment Agency's written approval.</p> <p>The operator will give the Environment Agency at least fourteen days' notice of the commencement of the monitoring exercise.</p> <p>The Environment Agency will be notified immediately if any fugitive releases are detected during the monitoring exercise.</p> | 6 months from permit issue |
| IP6 | <p>The Operator shall submit a written proposal to the Environment Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from the Green Plant Emission Point and the Blue Plant Emission Point identifying the fractions within the PM₁₀, and PM_{2.5} ranges. The proposal shall include a timetable for approval by the Environment Agency to carry out such tests and produce a report on the results.</p> <p>On receipt of written agreement by the Environment Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Environment Agency a report on the results.</p> | 6 months from permit issue |

Schedule 2 – Waste types, raw materials and fuels

| Table S2.1 Raw materials and fuels | |
|------------------------------------|---------------|
| Raw materials and fuel description | Specification |
| Liquid petroleum gas | - |
| Nitrogen | - |
| Diesel | - |
| Hydraulic oil | - |
| Lubrication greases | - |

| Table S2.2 Permitted Waste types and quantities for activities A1, A2 and A3 – Fridge destruction & storage | |
|---|---|
| Maximum Quantities | The total quantity of waste accepted at the site shall be less than 25,000 tonnes per year. |
| Exclusions | Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> • Consisting solely or mainly of dusts, powders or loose fibres • Any wastes containing asbestos |
| Waste Code | Description |
| 16 | Wastes not otherwise specified in the list |
| 16 02 | wastes from electrical and electronic equipment |
| 16 02 11* | discarded equipment containing chlorofluorocarbons, HCFC, HFC |
| 16 02 13* | discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12 |
| 16 02 14 | discarded equipment other than those mentioned in 16 02 09 to 16 02 13 |
| 16 02 16 | components removed from discarded equipment other than those mentioned in 16 02 15 |
| 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 23* | discarded equipment containing chlorofluorocarbons |
| 20 01 35* | discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components |
| 20 01 36 | discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35 |

| Table S2.3 Permitted Waste types and quantities for activity A8 - Metal Recycling | |
|--|---|
| Maximum Quantities | The total quantity of waste accepted at the site shall be less than 75,000 tonnes per year. |
| Exclusions | Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> • Consisting solely or mainly of dusts, powders or loose fibres • Wastes that are in a form which is either sludge or liquid |
| 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 10 | waste metal |
| 12 | WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS |
| 12 01 | wastes from shaping and physical and mechanical surface treatment of metals and plastics |
| 12 01 01 | ferrous metal filings and turnings |
| 12 01 03 | non-ferrous metal filings and turnings |
| 15 | WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED |
| 15 01 | packaging (including separately collected municipal packaging waste) |
| 15 01 04 | metallic packaging |
| 16 | WASTES NOT OTHERWISE SPECIFIED IN THE LIST |
| 16 01 | end-of-life vehicles from different means of transport (including off-road machinery) and waste from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08) |
| 16 01 06 | end-of-life vehicles containing neither liquids nor other hazardous components |
| 16 01 17 | ferrous metal |
| 16 01 18 | non-ferrous metal |
| 16 01 21* | hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14 |
| 16 01 22 | discarded components not otherwise specified |
| 16 06 | batteries and accumulators |
| 16 06 01* | lead batteries |
| 16 06 03* | mercury-containing batteries |
| 16 06 04 | alkaline batteries (except 16 06 03) |
| 16 06 05 | other batteries and accumulators |
| 17 | CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES) |
| 17 04 | metals (including their alloys) |
| 17 04 01 | copper, bronze, brass |
| 17 04 02 | aluminium |
| 17 04 03 | lead |
| 17 04 04 | zinc |
| 17 04 05 | iron and steel |

| Table S2.3 Permitted Waste types and quantities for activity A8 - Metal Recycling | |
|--|---|
| Maximum Quantities | The total quantity of waste accepted at the site shall be less than 75,000 tonnes per year. |
| Exclusions | Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> • Consisting solely or mainly of dusts, powders or loose fibres • Wastes that are in a form which is either sludge or liquid |
| Waste Code | Description |
| 17 04 06 | tin |
| 17 04 07 | mixed metals |
| 17 04 11 | cables other than those mentioned in 17 04 10 |
| 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 01 | wastes from incineration or pyrolysis of waste |
| 19 01 02 | ferrous materials removed from bottom ash |
| 19 10 | wastes from shredding of metal-containing wastes |
| 19 10 01 | iron and steel waste |
| 19 10 02 | non-ferrous wastes |
| 19 12 | wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified |
| 19 12 02 | ferrous metal |
| 19 12 03 | non-ferrous metal |
| 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 33* | lead batteries |
| 20 01 40 | metals |

Schedule 3 – Emissions and monitoring

| Table S3.1 Point source emissions to air – emission limits and monitoring requirements | | | | | | |
|---|--|---|---|-------------------------|--|---|
| Emission point ref. & location | Source | Parameter | Limit (including unit) | Reference period | Monitoring frequency | Monitoring standard or method |
| Green Plant Emission Point and Blue Plant Emission Point | Extraction System | Total Suspended particulates | 10 mg/m ³ or other level agreed in writing with the Environment Agency | Hourly average | Quarterly or other frequency agreed in writing with the Environment Agency | In accordance with BS EN 13284-1 or as agreed in writing with the Environment Agency. |
| | Stage 2 process treating refrigeration units | CFCs | Mass loss limit, set on a pro-rata basis, based upon a mass limit of 5g per 100 units processed per hour ¹ | Hourly average | Quarterly or other frequency agreed in writing with the Environment Agency | BS EN 13649 |
| | Stage 2 process treating refrigeration units | Other volatile organic compounds (including HCFCs, HFCs and HCs) | - | Hourly average | Quarterly or other frequency agreed in writing with the Environment Agency | |

| Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements | | | | | | |
|---|--|------------------|---------------------------|-------------------------|-----------------------------|--|
| Emission point ref. & location | Source | Parameter | Limit (incl. unit) | Reference Period | Monitoring frequency | Monitoring standard or method |
| Emission to Walsall Canal at Surface Water Discharge Point as shown on the site plan in schedule 7 | Uncontaminated surface water runoff that has passed through an oil interceptor | No parameter set | No limit set | -- | Weekly | Visual assessment – no visible oil or grease |

| 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 |
| Pre-destruction processing Compressor oil | Concentration of refrigerant in the oil (%w/w) | Quarterly | Independent conformance testing | - |
| Refrigeration unit degassing | Refrigeration unit type | Daily | Record of each unit type | Type 1 - 4 |
| | Refrigerant type | | | CFC, HCFC, HFC, HC or ammonia |
| | Number of defective | | | - |
| Quantity of refrigerant recovered | Quantity of refrigerant collected over reporting period | Monthly | Weighed using calibrated scales | - |
| Record of residual wastes removed from the site | As set in Form Appendix A: Quantities of residual materials from pre-destruction and destruction process | Quarterly | - | - |
| Destruction plant Contained environment | Lower Explosive Limit (LEL) or Limiting Oxygen Concentration (LOC) | Continuous | - | - |
| Residual materials conformance testing | Quantity of foam remaining on the granulated metal after processing (%w/w) | Quarterly | Independent conformance testing | - |
| | Quantity of foam remaining on the granulated plastic after processing (%w/w) | Quarterly | Independent conformance testing | - |
| | Quantity of residual blowing agents remaining in the foam after processing (%w/w) | Quarterly | Independent conformance testing | - |
| Refrigeration unit carcass destruction | Refrigeration unit type | Daily | Record of each carcass destruction | Type 1 - 4 |
| | Blowing agent type | | | CFC, HCFC, HFC or HC |
| Record of insulation panel foam destruction | Volume of panel processed | Monthly | Calculation | - |

Schedule 4 – Reporting

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

| Parameter | Emission or monitoring point/reference | Reporting period | Period begins |
|--|--|------------------|--|
| Results of independent conformance testing of emissions to air (CFCs, other Volatile Organic Compounds and particulates) as required by table S3.3 | Green Plant Emission Point and Blue Plant Emission Point | Quarterly | From the first quarter following issue of this variation |

| Parameter | Frequency |
|--|-----------|
| A summary of the residual waste materials removed from site, in the format of Appendix A | Quarterly |

| Parameter | Frequency of assessment | Units |
|--|-------------------------|----------------------------|
| A summary of the wastes processed and the efficiency of the processing operations, in the format of Appendix B | Monthly | As specified in Appendix B |
| A summary of the residual materials conformance testing, in the format of Appendix C | Quarterly | %w/w |
| Water usage | Annually | m ³ |
| Energy usage | Annually | MWh |
| Total raw material used | Annually | tonne |

| Media/parameter | Reporting format | Date of form |
|---|--|--------------|
| Air | Form air 1 or other form as agreed in writing by the Environment Agency | 24/02/17 |
| Quantities of residual materials | Quantities of residual materials from pre-destruction and destruction process form (Appendix A) or other form as agreed in writing by the Environment Agency | 24/02/17 |
| Process efficiency | Destruction process efficiency reporting form (Appendix B) or other form as agreed in writing by the Environment Agency | 24/02/17 |
| Conformance testing of residual materials | Residual materials conformance testing reporting form (Appendix C) or other form as agreed in writing by the Environment Agency | 24/02/17 |

| Table S4.4 Reporting forms | | |
|-----------------------------------|---|---------------------|
| Media/parameter | Reporting format | Date of form |
| Water usage | Form water usage 1 or other form as agreed in writing by the Environment Agency | 24/02/17 |
| Energy usage | Form energy 1 or other form as agreed in writing by the Environment Agency | 24/02/17 |
| Other performance indicators | Form performance 1 or other form as agreed in writing by the Environment Agency | 24/02/17 |

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

| | |
|---|--|
| (b) Notification requirements for the breach of a limit | |
| To be notified within 24 hours of detection unless otherwise specified below | |
| Emission point reference/ source | |
| Parameter(s) | |
| Limit | |
| Measured value and uncertainty | |
| Date and time of monitoring | |

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

“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.

“baling” means baling that utilises a hydraulic machine that using compressive forces compacts various materials into regular-shaped dense bales (typically a cube). Bales may be belted with straps or steel wire to keep the bale in its compacted state; although for most metal bales this is not necessary. Baled scrap metal may be easier to handle, store and transport than loose scrap.

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

“blowing agent” means blowing agent used in the foam formation process and contained in the insulating foam of a refrigeration unit, or other relevant electrical appliance, or insulation panel. Blowing agents are used in the foam formation process and include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) and hydrocarbons (HCs).

“compacting” means compacting involving the flattening or crushing of compactable metal wastes to aid storage and economic transportation to the scrap processor; it is often a preparation for shredding. Compacting may be achieved using a waste handler’s loading shovel (known as “tapping”) or specially-designed hydraulic flattener.

“contained environment” means an environment where there is atmospheric containment. This includes areas where air egress may only be facilitated through air extraction and blowing agent capture systems

“controlled substances” means chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane, methyl bromide, hydrobromofluorocarbons and hydrochlorofluorocarbons listed in Annex I of Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer, including their isomers, whether alone or in a mixture, and whether they are virgin, recovered, recycled or reclaimed.

“cutting” means cutting typically utilising either an oxy-acetylene gas cutting torch or abrasive disc cutter to cut and/or resize large pieces of scrap metal into more manageable sizes; powder torches and plasma torches may be used to cut heat-resistant scrap e.g. pig iron, copper, bronze).

“defective unit” means a refrigeration unit that does not have any gas pressure in the cooling circuit.

“disposal” means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council 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.

“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.

“grading” means the sorting of metals to industry-agreed specifications ready for use, without the need for further treatment, by the end consumer to manufacture new metals.

“granulating” means granulated to a very small size with metal/non-metal separation by air classification and flotation.

“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 in Annex III of the Waste Framework Directive.

“hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 No.894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No.895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

“independent conformance testing” means independent sampling and testing of residual materials and emission points to confirm whether or not the standards set in the permit for fridge destruction are being fulfilled, carried out by an external laboratory and using accredited methods where they are available.

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

“insulation panel” means rigid polyurethane foam insulation boards, typically removed from the internal and external walls, roofs and ceilings of buildings, cold stores or commercial or domestic cooling equipment, which contain CFC, HCFC, HFC or HC blowing agents.

“insulation panel type” is based upon the type of facing material used to back or sandwich the insulation panel foam (e.g. aluminium foil, steel sheet, wood).

“list of wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“Lower Explosive Limit” means the lowest concentration (specified as a percentage) of a combustible gas in air capable of burning in the presence of an ignition source.

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

“ozone-depleting substances”, “ODS” means “controlled substances” contained in refrigeration, air-conditioning and heat pump equipment, equipment containing solvents, fire protection systems and fire extinguishers.

“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.

“Reference 1” means the International Atomic Energy Agency recommendations in Annex IV of ‘Recommendations on Monitoring and Response Procedures for Radioactive Scrap Metal’, UNECE, 2006.

“refrigerant” means refrigerant gas contained in the compressor and cooling circuit of the refrigeration unit. Refrigerants include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs), hydrocarbons (HCs) and ammonia.

“refrigeration unit type” are four identified types of refrigeration unit, as set out in the table below:

| | |
|--------|---|
| Type 1 | Refrigerator with storage capacity <0.18m ³ |
| Type 2 | Refrigerator or combined refrigerator/freezer with storage capacity >0.18m ³ & <0.35m ³ |
| Type 3 | Freezer with storage capacity <0.50m ³ |
| Type 4 | any refrigerator or freezer not covered by Types 1-3 |

“refrigeration unit” should be taken to include all types of refrigeration equipment as well as appliances like heat pump tumble dryers, de-humidifiers and portable air conditioners, and comparable commercial refrigeration units and appliances, are not explicitly included in the unit types defined above, however they should still be taken into account in the Appendix A and Appendix B reporting requirements and managed in accordance with the conditions of the permit where relevant.

“refrigeration unit carcass” is the term used to describe refrigeration unit following completion of pre-destruction processing (i.e. following drainage of cooling system and removal of compressor and any switches/components, condensers and electronic drives).

“residual materials” means both materials and wastes resulting from the specified operations.

“sealed drainage system” in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- no liquids will run off the surface otherwise than via the system
- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged.

“separation” means separating wastes into different material types, components and grades.

“shearing” means utilises a range of hydraulic machinery that comprise hard steel blades which cut metals into manageable sizes. It may be hand-held, static or attached to mobile plant (e.g. cranes).

“sorting” means sorting that may be undertaken by hand or machinery. Sorting enables materials to be processed and recycled appropriately. It may involve separation of different waste types or the separation of different metal types including different ferrous metals, non-ferrous metals and non-metallic materials (e.g. paper and plastic). The sorted metals are graded by visual inspection, supplemented by chemical and other laboratory tests. The physical sorting may be assisted by conveyors and electromagnets.

“treatment in shredders” includes treatment in plant such as hammer mills, chain mills, rotary shears and other similar equipment that is designed to fragment metal into smaller pieces to allow the separation of the metallic and the non-metallic fractions. It does not include shearers and guillotines which utilise a range of hydraulic machinery that comprise hard steel blades to cut metals into manageable sizes.’

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

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

“WEEE” means waste electrical and electronic equipment.

“WEEE Directive” means Directive 2012/19/EU of the European Parliament and of the Council of 4th July 2012 on waste electrical and electronic equipment (WEEE).

“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:

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

Where the following terms appear in the waste code list in schedule 2, tables S2.2 and S2.3, they have the meaning given below.

“hazardous substance” means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008.

“heavy metal” means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“polychlorinated biphenyls and polychlorinated terphenyls” (“PCBs”) means PCBs as defined in Article 2(a) of Council Directive 96/59/EC’.

Article 2(a) says that ‘PCBs’ means:

- polychlorinated biphenyls;
- polychlorinated terphenyls;
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane; and
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight.

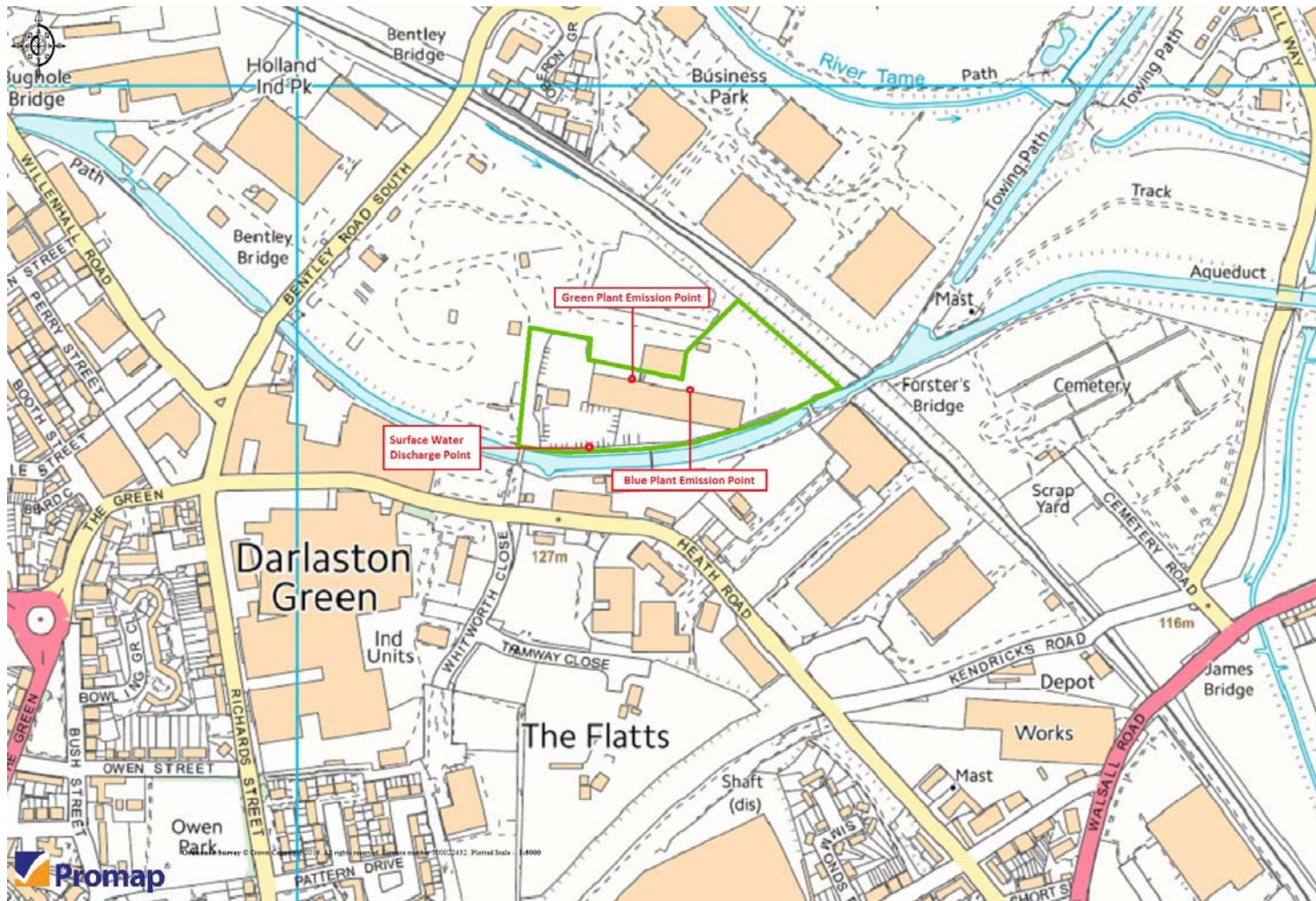
“transition metals” means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances.

“stabilisation” means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste.

“solidification” means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste.

“partly stabilised wastes” means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7 – Site plan



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END OF PERMIT

Permit number
EPR/GP3292FT

Permit Number: EPR/GP3292FT
Facility: EMR Fridge Destruction

Operator: EMR
Form Number: Air1 / 24/02/17

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

| Emission Point | Substance / Parameter | Emission Limit Value | Reference Period | Result [1] | Test Method [2] | Sample Date and Times [3] | Uncertainty [4] |
|---|--|--|------------------|------------|-----------------|---------------------------|-----------------|
| Green Plant Emission Point Blue Plant Emission Point | CFCs | Mass loss limit set on a pro rata basis upon a mass limit of 5g per 100 units process per hour | Hourly average | | | | |
| Green Plant Emission Point Blue Plant Emission Point | Other volatile organic compounds (including HCFCs, HFCs and HCs) | -- | Hourly average | | | | |

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed Date.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/GP3292FT

Operator: EMR

Facility: EMR Fridge Destruction

Form Number: WaterUsage1 / 24/02/17

Reporting of Water Usage for the year

| Water Source | Usage (m³/year) | Specific Usage (m³/unit output) |
|--------------------------|-----------------------------------|---|
| | | |
| | | |
| | | |
| TOTAL WATER USAGE | | |

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)

Permit Number: EPR/GP3292FT

Operator:

EMR

Facility: EMR Fridge Destruction

Form Number:

Energy1 / 24/02/17

Reporting of Energy Usage for the year

| Energy Source | Energy Usage | | Specific Usage (MWh/unit output) |
|---------------|--------------|----------------------|----------------------------------|
| | Quantity | Primary Energy (MWh) | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TOTAL | - | | |

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EPR/GP3292FT

Operator: EMR

Facility: EMR Fridge Destruction

Form Number: Performance1 / 24/02/17

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

| Parameter | Units |
|-----------|-------|
| | |
| | |
| | |

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)

Appendix A

Permit Number: EPR/GP3292FT

Operator:

EMR

Facility: EMR Fridge Destruction

Form Number:

Appendix A / 24/02/17

Residual materials removed from DD/MM/YYYY to DD/MM/YYYY

| Quantities of residual materials from pre-destruction and destruction processes | | |
|---|---|------------|
| Residual materials | Waste Categories | Quantities |
| Refrigerants and blowing agents | 14 06 01* chlorofluorocarbons, HCFC, HFC | kg |
| Refrigerants and blowing agents | 14 06 03* other solvents and solvent mixtures ¹ | kg |
| Compressor oil | 13 02 08* other engine, gear and lubricating oils | litres |
| Spent activated carbon | 06 13 02* spent activated carbon (except 06 07 02) | kg |
| Mercury switches etc. | 19 10 05* other fractions containing dangerous substances | kg |
| Ferrous metal | 19 10 01 iron and steel waste | tonnes |
| Non-ferrous metal | 19 10 02 non-ferrous waste | tonnes |
| Polyurethane foam | 19 12 04 plastic and rubber | tonnes |
| Plastic and rubber | 19 12 04 plastic and rubber | tonnes |
| Glass | 19 02 05 glass | tonnes |
| Others | 19 10 06 other fractions other than those mentioned in 19 10 05 | kg |

[1] 14 06 03* should only be used if the waste does not contain CFC, HCFC or HFC refrigerant or blowing agent.

Appendix B

Permit Number: EPR/GP3292FT

Operator:

EMR

Facility: EMR Fridge Destruction

Form Number:

Appendix B / 24/02/17

Destruction process efficiency reporting from DD/MM/YYYY to DD/MM/YYYY

Stage 1 Degassing

| Record of refrigeration units received for Stage 1 degassing | | | |
|--|-----------------|-----------------------------|--------------------|
| Type of unit | Number of units | Assumed refrigerant content | Refrigerant totals |
| Number of defective units ¹ | | -- | -- |
| Number of units containing halogenated refrigerants (CFCs, HCFCs and HFCs) (A) | | x 100 g per unit = | |
| Number of units containing a hydrocarbon refrigerant (B) | | x 40 g per unit = | |
| Number of units containing ammonia refrigerant (C) | | x 500 g per unit = | |
| Number of other non-defective appliances ² | | | |
| Total number of viable units (D) = (A) + (B) + (C) | | Total refrigerant = | g |

[1] Identified from visual inspection (i.e. no compressor or damaged cooling circuit, manometer (no gas pressure), or foam formation in inspection glass.

[2] Includes heat-pump tumble dryers, de-humidifiers and air conditioners.

| Theoretical recovery of refrigerant per unit | |
|--|------------|
| Total refrigerant / (D) | g per unit |
| | |

| Recovery of refrigerant | Amount / unit |
|--|---------------|
| Weight of refrigerant storage container at start of reporting period (E) | g |
| Weight of refrigerant storage container at end of reporting period (F) | g |
| Weight of refrigerant recovered during reporting period (G) = (F) – (E) | g |
| Average weight of recovered refrigerant per unit = (G) / (D) | g per unit |

Stage 2 Destruction

| Record of unit carcasses processed for destruction | | | |
|--|-----------------|---|----------------------|
| Type of unit | Number of units | Assumed blowing agent content | Blowing agent totals |
| Carcasses containing halogenated blowing agents (CFCs, HCFCs, HFCs) | | | |
| Type 1 | | x 240 g BA/unit = | g |
| Type 2 | | x 320 g BA/unit = | g |
| Type 3 & 4 | | x 400 g BA/unit = | g |
| Carcasses containing hydrocarbon blowing agents | | | |
| Type 1 | | x 130 g BA/unit = | g |
| Type 2 | | x 227 g BA/unit = | g |
| Type 3 & 4 | | x 341 g BA/unit = | g |
| Total number of units processed for destruction (H) | | Theoretical total blowing agent to be recovered | g |

| Theoretical blowing agent recovery per unit for given unit type mix | |
|--|------------|
| Theoretical total blowing agent / number of units (H) | g per unit |
| | |

| Record of insulation panel foam processed for destruction | Amount |
|--|----------------|
| Volume of panel processed | m ³ |

| Actual recovery of blowing agent | Amount / unit |
|---|----------------------|
| Weight of blowing agent container at start of reporting period (I) | g |
| Weight of blowing agent container at end of reporting period (J) | g |
| Weight of recovered blowing agent during reporting period (K) = (J) – (I) | g |
| Average weight of recovered blowing agent per unit = (K) / (H) | g per unit |

Appendix C

Permit Number: EPR/GP3292FT

Operator:

EMR

Facility: EMR Fridge Destruction

Form Number:

Appendix C / 24/02/17

Residual materials conformance testing reporting from DD/MM/YYYY to DD/MM/YYYY

| Residual materials | | |
|---|---|--------------------|
| Parameter | Limit | Sampling Result(s) |
| Quantity of foam remaining on the granulated metal after processing | | |
| Quantity of foam remaining on the granulated plastic after processing | | |
| Quantity of residual blowing agent remaining in the polyurethane foam | 0.5% w/w where foam is stored in a contained environment subject to further recovery or destruction | |
| | OR | |
| | 0.2% w/w in other cases | |
| Concentration of refrigerant in the compressor oil | <0.9% w/w | |