

# Notice of variation and consolidation with introductory note

Environmental Permitting (England & Wales) Regulations 2010

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Electrical Waste Recycling Group  
Limited

School Lane Site  
Units 1 – 5 Newlands Trade Park  
School Lane  
Kirkheaton  
Huddersfield  
West Yorkshire  
HD5 0JS

Variation application number  
EPR/QP3034KA/V003

Permit number  
EPR/QP3034KA

# **School Lane Site**

## **Permit number EPR/QP3034KA**

### **Introductory note**

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

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

The operator has applied to vary their permit to allow the mechanical treatment of flat panel displays (FPDs) at their site, specifically liquid crystal displays (LCDs) containing mercury backlights.

The process utilises the operator's existing mechanical waste electronic and electrical equipment (WEEE) treatment plant in the Unit 5 building. This is already in operation but is not used for FPDs, which are currently dismantled by hand, a labour intensive process. The operator has made changes to the plant to enhance the removal of mercury from the FPD waste stream. It is expected that the FPDs will make up 50% of the plant throughput, at a maximum of 9 tonnes per hour.

Prior to processing, external power and interface cables are removed by hand for recovery. FPDs are then loaded manually onto a feed conveyor and conveyed to an enclosed feed hopper. This discharges to a primary shredder for initial size reduction. Output from the shredder then passes through further size reduction and separation and screening measures, before passing through a secondary shredder where the remaining major constituent materials are shredded to a final fraction size before separation measures are applied.

The plant is sealed or enclosed at critical points and process air is extracted to an abatement plant which discharges within the building at point A1. The abatement plant includes particulate filtration and a mercury vapour adsorption plant using carbon.

The site has an Environmental Management System (EMS) accredited to ISO 14001, and appropriate technically competent management.

We have taken the opportunity to update several conditions as a result of previous improvement condition responses, and also to correct some drafting errors in the previous permit. As a result of the number of condition changes, we have re-issued a consolidated set of permit conditions.

The schedules specify the changes made to the original permit.

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

| <b>Status log of permit</b>                                             |                         |                                                                                                              |
|-------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------|
| <b>Description</b>                                                      | <b>Date</b>             | <b>Comments</b>                                                                                              |
| Application<br>EPR/JP3731MY/A001                                        | Duly made<br>09/02/07   | Application for a hazardous waste treatment facility                                                         |
| Additional information received                                         | 22/06/07                |                                                                                                              |
| Additional information received                                         | 28/06/07                |                                                                                                              |
| Additional information received                                         | 04/07/07                |                                                                                                              |
| Additional information received                                         | 17/08/07                |                                                                                                              |
| Permit determined                                                       | 04/09/07                | Permit issued to Matrix-Direct-Recycle Limited                                                               |
| Variation Application<br>EPR/JP3731MY/V002 (PAS ref: FP3231XA)          | 29/04/08                |                                                                                                              |
| Additional information requested 08/07/08                               | 14/08/08                |                                                                                                              |
| Additional information requested 20/08/08                               | 03/09/08                |                                                                                                              |
| Additional information requested 17/09/08                               | 29/09/08                |                                                                                                              |
| Variation determined                                                    | 23/12/08                | Variation Notice issued to Matrix-Direct-Recycle Limited                                                     |
| Application<br>EPR/QP3034KA/T001 (Full transfer of permit EPR/JP3731MY) | Duly made<br>05/10/09   |                                                                                                              |
| Transfer determined<br>EPR/QP3034KA                                     | 23/10/09                | Transfer Notice issued to Electrical Waste Recycling Group Limited                                           |
| Application<br>EPR/QP3034KA/V002                                        | Duly made<br>14/06/12   | Application to vary and consolidate with EPR/FB3134AR                                                        |
| Variation and consolidation determined<br>EPR/QP3034KA/V002             | 25/01/13                | Varied and consolidated permit issued in modern condition format to Electrical Waste Recycling Group Limited |
| Variation application<br>EPR/QP3034KA/V003                              | Duly made<br>23/09/2013 | -                                                                                                            |
| Additional information requested 01/11/2013                             | 05/11/2013              | -                                                                                                            |
| Variation<br>EPR/QP3034KA/V003 determined                               | 29/11/2013              |                                                                                                              |

End of introductory note.

## Notice of variation and consolidation

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/QP3034KA**

**issued to:**  
**Electrical Waste Recycling Group Limited** ("the operator")

whose registered office is

**400 Denmark Street**  
**Glasgow**  
**G22 6DB**

company registration number **SC208558**

to operate a regulated facilities at

**School Lane Site**  
**Units 1 – 5 Newlands Trade Park**  
**Kirkheaton**  
**Huddersfield**  
**West Yorkshire**  
**HD5 0JS**

to the extent set out in the schedules.

The notice shall take effect from 29/11/2013

Name

Date

**Anne Nightingale**

**29/11/2013**

Authorised on behalf of the Environment Agency

**Schedule 1**

All conditions have been varied by the consolidated permit EPR/QP3034KA.

Only conditions 1.2.1, 1.3.1, Table S1.1, Table S1.2, Table S2.1, Table S3.4 and Table S4.2 have been varied by the consolidated permit EPR/QP3034KA as a result of the application made by the operator.

Conditions 2.3.3, 2.3.4, 3.5.1, section 4.3 (all conditions), Table S1.1, Table S1.2, Table S1.3 and Table S3.5 have been varied by the consolidated permit EPR/QP3034KA as a result of an Environment Agency initiated variation.

**Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

The Environmental Permitting (England and Wales) Regulations 2010

**Permit number**  
**EPR/QP3034KA**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/QP3034KA/V003  
authorising,

**Electrical Waste Recycling Group Limited** ("the operator"),  
whose registered office is

**400 Denmark Street**  
**Glasgow**  
**G22 6DB**

company registration number **SC208558**  
to operate an installation and waste operations at

**School Lane Site**  
**Units 1 – 5 Newlands Trade Park**  
**Kirkheaton**  
**Huddersfield**  
**West Yorkshire**  
**HD5 0JS**

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

| Name                    | Date              |
|-------------------------|-------------------|
| <b>Anne Nightingale</b> | <b>29/11/2013</b> |

Authorised on behalf of the Environment Agency

# 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 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 to A5) the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

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

1.4.1 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”).

### **2.2 The site**

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

### **2.3 Operating techniques**

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit 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 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.1 and S2.2; and
- (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.3 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.
- 2.3.4 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.

### **2.4 WEEE treatment**

- 2.4.1 The storage (including temporary storage) and treatment of WEEE shall be carried out in accordance with the technical requirements of Annex III of the WEEE Directive.
- 2.4.2 WEEE shall be treated using best available treatment, recovery and recycling techniques (BATRRRT).

- 2.4.3 As a minimum, the substances, preparations and components specified in table 2.4 shall be removed from any separately collected WEEE.

**Table 2.4 Substances, preparations and components to be removed from separately collected WEEE**

- Capacitors containing Polychlorinated biphenyls (PCB)
- 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 pasty, 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
- 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
- Electrolytic capacitors containing "substances of concern" (height >25 mm, diameter >25 mm or proportionately similar volume)

- 2.4.4 All fluids contained within any WEEE shall be removed prior to further treatment.

- 2.4.5 Separately collected components of WEEE specified in table 2.5 shall be treated in accordance with the methods specified in that table.

**Table 2.5 Specified Treatment Methods for separately collected components of WEEE**

| Component           | Specified Treatment           |
|---------------------|-------------------------------|
| Gas discharge lamps | The mercury shall be removed. |

- 2.4.6 Equipment shall be provided to record the weight of untreated WEEE accepted at, and components and materials leaving the site.

## **Waste battery and accumulator treatment**

- 2.4.7 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.

## **Hazardous waste storage and treatment**

- 2.4.8 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 Improvement programme**

- 2.5.1 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.
- 2.5.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **2.6 Pre-operational conditions**

- 2.6.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

## **3 Emissions and monitoring**

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

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 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 Noise and vibration**

- 3.3.1 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 Odour**

- 3.4.1 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.
- 3.4.2 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.

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1 and S3.2;
  - (b) noise specified in table S3.3;
  - (c) process monitoring specified in table S3.4;
  - (d) ambient air monitoring requirements in table S3.5.
- 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.

### **3.6 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 from pests;
  - (b) implement the pests management 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 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by 31 January each year in respect of the previous year.

### **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 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 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 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                                  | Section 2.2 A(1)(f)                                 | Recovery of mercury from phosphor powder and mercury containing components by heating and condensation in a retort.                                                          | <p>Treatment for recovery of mercury from phosphor powder and other mercury containing waste by heating and condensation in a Retort and MRT Single and Twin Dome Distillers.</p> <p>Waste types and quantities as specified in Schedule 2 table S2.1</p>                                                                                                                                                  |
| A2                                  | Section 5.3 A(1)(a)(vi)                             | Recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving recycling or reclamation of inorganic materials other than metals or metal compounds (R5). | <p>Mechanical treatment of gas discharge lamps for the purpose of recovery of constituent materials.</p> <p><b>Treatment in the Lamp plant; HID and SON Lamps; Other lights from FPD's; Treatment of SOx Lamps</b></p> <p>Waste types and quantities as specified in Schedule 2 table S2.1</p>                                                                                                             |
| A3                                  | Section 5.3 A(1)(a)(ii)                             | Recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment (R3, R4).                                                       | <p>Mechanical treatment of Flat Panel Display (FPD) screens, for the purpose of recovery of constituent materials.</p> <p>Treatment in the WEEE plant; techniques as agreed in operating techniques table S1.2.</p> <p>FPD screens received under waste codes 16 02 13* and 20 01 35* only. Maximum quantities as specified in Schedule 2 table S2.1</p>                                                   |
| <b>Directly Associated Activity</b> |                                                     |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                            |
| A4                                  | Storage of wastes                                   | Storage of feedstock of mercury bearing wastes for the retort and storage of process output from the retort.                                                                 | <p>Storage of untreated phosphor powder shall not exceed 20 tonnes.</p> <p>Storage of treated phosphor powder shall not exceed 20 tonnes.</p> <p>Phosphor shall only be stored in an appropriate sealed container, which shall be labelled with a description of its contents.</p> <p>All waste storage and transfer of processed wastes between bags or containers shall take place within buildings.</p> |

**Table S1.1 Activities**

| A5 | Storage of wastes                                                                                                                                                                                                                                                                                                                                                                                                                                            | Storage of feedstock for the lamp plants and storage of process outputs from the lamp plant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Storage of SO <sub>x</sub> lamps shall not exceed 12 tonnes.<br><br>Storage of sodium hydroxide shall not exceed 2 m <sup>3</sup> .<br><br>All waste storage and transfer of processed wastes between bags or containers shall take place within buildings. |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Description of activities for waste operations                                                                                                                                                                                                                                                                                                                                                                                                               | Limits of activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                             |
| A6 | <b>Transfer and Treatment Facility including WEEE</b><br><br><b>R13:</b> Storage of wastes pending any of the operations numbered R1 to R12: (excluding temporary storage, pending collection, on the site where it is produced)<br><b>R3:</b> Recycling/reclamation of organic substances which are not used as solvents<br><b>R4:</b> Recycling/reclamation of metals and metal compounds<br><b>R5:</b> Recycling/reclamation of other inorganic materials | <b>Storage of hazardous waste for recovery</b><br><b>Storage of non-hazardous waste</b><br><b>Storage of hazardous waste for disposal not exceeding 10 tonnes at any time.</b><br>Treatment consisting only of sorting, dismantling, separation, shredding, screening, grading, baling, shearing, compacting, crushing, granulation, repair or refurbishment, or cutting of waste into different components for recovery only in the plants agreed in operating techniques table S1.2 including:<br><b>Transfer and treatment of wastes including WEEE;</b><br><b>Manual dismantling of FPD screens;</b><br><b>Manual dismantling of CRT units and removal intact CRT glass units;</b><br><b>Cable Plant;</b><br><b>Battery Plant for treatment of batteries and accumulators – sorting by chemical component;</b><br><b>Oil filled radiators – including decanting waste oil;</b><br><b>Repair or refurbishment of wastes.</b><br>Waste types to be as specified in Schedule 2 table S2.2. |                                                                                                                                                                                                                                                             |

**Table S1.2 Operating techniques**

| Description                                                         | Parts                                               | Date Received |
|---------------------------------------------------------------------|-----------------------------------------------------|---------------|
| Application (EPR/JP3731MY/A001)                                     | All (as amended by additional information received) | 09/02/2007    |
| Additional information received from Alastair Rogers at Wam Cal Ltd | All                                                 | 22/06/2007    |
| Additional information received from Alastair Rogers at Wam Cal Ltd | All                                                 | 28/06/2007    |
| Additional information received from Alastair Rogers at Wam Cal Ltd | All                                                 | 04/07/2007    |
| Additional information received from Alastair Rogers at Wam Cal Ltd | All                                                 | 17/08/2007    |

**Table S1.2 Operating techniques**

| <b>Description</b>                                                   | <b>Parts</b>                                                                                                                                                                                                                                                                                                                                             | <b>Date Received</b> |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Variation Application (EPR/JP3731MY/V002)                            | All                                                                                                                                                                                                                                                                                                                                                      | 29/04/2008           |
| Additional information received from Alastair Rogers at Wam Cal Ltd  | All                                                                                                                                                                                                                                                                                                                                                      | 12/08/2008           |
| Additional information received from Alastair Rogers at Wam Cal Ltd  | All                                                                                                                                                                                                                                                                                                                                                      | 03/09/2008           |
| Additional information received from Alastair Rogers at Wam Cal Ltd  | All                                                                                                                                                                                                                                                                                                                                                      | 29/09/2008           |
| Information submitted in accordance with Improvement Condition IC1   | Firewater Containment Plan Document written by Darcy Spillcare Manufacturer Limited for EWRG.                                                                                                                                                                                                                                                            | July 2012            |
| Information submitted in accordance with Improvement Condition IC2   | Procedure for handling, investigating, communicating and reporting environmental complaints.                                                                                                                                                                                                                                                             | 27/05/2009 by email. |
| Information submitted in accordance with Improvement Condition IC3   | Exit duct mercury vapour trigger level for replacement of the mercury retort carbon adsorber.                                                                                                                                                                                                                                                            | 07/09/2010           |
| Information submitted in accordance with Improvement Condition IC5   | Mercury emissions procedure specifying actions to be taken in the event of a trigger level being exceeded.                                                                                                                                                                                                                                               | 22/05/2009           |
| Information submitted in accordance with Improvement Condition IC9   | Revised Site Storage Plan                                                                                                                                                                                                                                                                                                                                | 29/04/2013           |
| Information submitted in accordance with Improvement Condition IC10  | Revised Accident Management Plan                                                                                                                                                                                                                                                                                                                         | 06/09/2013           |
| Information submitted in accordance with Improvement Condition IC11  | Procedure for manual loading of the retort oven                                                                                                                                                                                                                                                                                                          | 07/09/2010           |
| Information submitted in accordance with Improvement Condition IC12  | Report which reviews techniques used to prevent or control releases of mercury vapour from the retort oven.                                                                                                                                                                                                                                              | 03/11/2010           |
| Information submitted in accordance with Improvement Condition IC13  | Monitoring and sampling plan for the analysis of mercury content of pre-distilled phosphor powder.                                                                                                                                                                                                                                                       | 08/08/2010           |
| Information submitted in accordance with Improvement Condition IC14a | Monitoring proposals for a one off monitoring exercise to measure the long term deposition rates of particulate mercury, mercury vapour and particulate lead at the site boundary - presented in Envirocare report P-5276v3 dated 26 October 2009, subject to the additional information provided in email attached to this report on 26/10/09 at 15:01. | 26/10/2009           |
| Information submitted in accordance with Improvement Condition IC16  | Mercury Vapour Monitoring Plan                                                                                                                                                                                                                                                                                                                           | 01/08/2013           |
| Information submitted in accordance with Improvement Condition IC17  | Review of fugitive emissions of lead                                                                                                                                                                                                                                                                                                                     | 30/09/2013           |

**Table S1.2 Operating techniques**

| <b>Description</b>                                                  | <b>Parts</b>                                                                                                                      | <b>Date Received</b> |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Information submitted in accordance with Improvement Condition IC18 | Updated Site EMS and procedures                                                                                                   | 24/06/2013           |
| Information submitted in accordance with Improvement Condition IC19 | Proposals for treatment of the end caps from FPD backlights                                                                       | 30/09/2013           |
| Information submitted with Variation Application EPR/QP3034KA/V002  | Excluding the part of Application withdrawn on 9/1/13 and non- technical summary (as amended by additional information received). | 14/06/2012           |
| Additional Information received                                     | Schedule 5 Notice (1) response to questions 1 – 26 (as amended by additional information received).                               | 15/10/2012           |
| Additional Information received                                     | Schedule 5 Notice (2) response parts to questions 1 – 6 (as amended by additional information received).                          | 11/01/2013           |
| Additional Information received                                     | Revised non technical summary                                                                                                     | 11/01/2013           |
| Variation Application EPR/QP3034KA/V003                             | All parts                                                                                                                         | 23/09/2013           |
| Additional Information received                                     | Schedule 5 Notice dated 01/11/2013: responses to questions 1, 2.                                                                  | 05/11/2013           |

**Table S1.3 Improvement programme requirements**

| <b>Reference</b> | <b>Requirement</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Date</b> |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| IC1              | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COMPLETE    |
| IC2              | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COMPLETE    |
| IC3              | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COMPLETE    |
| IC4              | No longer required as incorporated into Variation Application EPR/QP3034KA/V002.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           |
| IC5              | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COMPLETE    |
| IC6              | No longer required as incorporated into Variation Application EPR/QP3034KA/V002.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           |
| IC7              | No longer required as incorporated into Variation Application EPR/QP3034KA/V002.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -           |
| IC8              | No longer required as now covered by condition 2.4.3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -           |
| IC9              | The operator shall submit to the Environment Agency for approval, a revised site storage plan. The storage plan shall include, but is not limited to: <ul style="list-style-type: none"> <li>• The storage location of each untreated and treated waste type;</li> <li>• The total maximum storage capacity for each untreated and treated waste type, this shall be clearly and unambiguously stated, accompanied with details used to calculate the volumes held against each maximum and set out in the plan. Storage capacity shall be expressed in both tonnes and pallet spaces and storage height.</li> </ul> The revised storage plan shall be implemented by the operator from the date of approval in writing by the Environment Agency. | COMPLETE    |
| IC10             | The operator shall conduct a review of the Accident Management Plan; the review shall take into consideration the additional risks to accidents on site as a result of the operational changes described in Permit Variation Application EPR/QP3034KA/V002.<br>The findings and subsequent improvements identified from the review                                                                                                                                                                                                                                                                                                                                                                                                                 | COMPLETE    |

**Table S1.3 Improvement programme requirements**

| Reference | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Date     |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|           | shall be submitted in writing to the Environment Agency with appropriate timescales for implementation of improvements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |
| IC11      | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | COMPLETE |
| IC12      | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | COMPLETE |
| IC13      | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | COMPLETE |
| IC14a     | See Table S1.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | COMPLETE |
| IC14b     | One off monitoring exercise carried out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | COMPLETE |
| IC14c     | Requirements now included in IC16 and 17.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | COMPLETE |
| IC15a     | The Operator shall submit proposals to the Environment Agency for approval in writing - for a revised Noise Management Plan (NMP) and noise monitoring programme. The revised noise management plan shall include: <ul style="list-style-type: none"> <li>mitigation measures in the event that an unacceptable level of noise is detected offsite;</li> <li>proposals to update the noise management plan as soon as any new mitigation measures or pieces of equipment are installed onsite;</li> <li>proposals for the NMP to be reviewed on a regular basis at a frequency to be agreed with the Environment Agency.</li> </ul> | COMPLETE |
| IC15b     | The Operator shall submit a revised noise management plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | COMPLETE |
| IC16      | The operator shall submit to the Environment Agency for approval in writing a mercury vapour monitoring plan for monitoring mercury vapour at the installation boundary, incorporating the requirements following submission of the report in accordance with IC14c.                                                                                                                                                                                                                                                                                                                                                                | COMPLETE |
| IC17      | The operator shall carry out a review of measures taken to reduce fugitive emissions of lead. The review shall include CRT dismantling operations in Unit 4. A report detailing the outcomes of the review shall be submitted the Environment Agency in writing.                                                                                                                                                                                                                                                                                                                                                                    | COMPLETE |
| IC18      | Update the site environmental management systems and procedures to incorporate the changes brought about by Variation and consolidation notice EPR/QP3034KA/V002.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | COMPLETE |
| IC19      | Following assessment of the mercury content of the end caps which have been removed manually from the backlights of the Flat Panel Displays - the operator shall submit proposals for treatment of the end caps to the Environment Agency in writing for approval.                                                                                                                                                                                                                                                                                                                                                                  | COMPLETE |

**Table S1.4 Pre-operational measures for future development**

| Reference | Operation                                                                                                                    | Pre-operational measures                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1         | Receipt, storage and processing of pre-segregated (mercury containing) phosphor powder from separately permitted facilities. | No longer applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 2         | Receipt, storage and processing of pre-segregated (mercury containing) phosphor powder from separately permitted facilities. | Prior to the receipt, storage and processing of pre-segregated (mercury containing) phosphor powder from separately permitted facilities the operator shall notify the Environment Agency in writing and submit written procedures for approval for the acceptance, handling and storage of the pre-segregated (mercury containing) phosphor powder. The procedures shall cover operations from acceptance of the powder on site to processing in the retort oven. |

**Table S1.4 Pre-operational measures for future development**

| Reference | Operation                                                                                                                    | Pre-operational measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3         | Receipt, storage and processing of pre-segregated (mercury containing) phosphor powder from separately permitted facilities. | Prior to the receipt, storage and processing of pre-segregated (mercury containing) phosphor powder from separately permitted facilities the operator shall submit to the Environment Agency in writing details of the confirmed disposal/recovery route for the treated phosphor powder. The details shall include name and address of waste management facility; and method of disposal/recovery.                                                                                                                                                              |
| 4         | Operation of the processing system for Low-Pressure Sodium (SOx) Lamps                                                       | Prior to the operation of the SOx Plant the operator shall put in place written procedures that describe the actions to be taken in the event of the following: <ul style="list-style-type: none"> <li>• Accidental breakages of the SOx Lamps resulting in fugitive emissions of the Sodium Oxide powder.</li> <li>• Spillages of liquid effluent.</li> </ul>                                                                                                                                                                                                   |
| 5         | Operation of the processing system for Low-Pressure Sodium (SOx) Lamps                                                       | Prior to the operation of the SOx plant the operator shall submit to the Environment Agency in writing details of the confirmed disposal/recovery route for the liquid effluent produced from the process. The details shall include name and address of waste management facility; and method of disposal/recovery.<br><br>In the event that the operator wants to store more than 2 m <sup>3</sup> of sodium hydroxide solution on site, proposals shall be submitted to the Environment Agency in writing detailing alternate storage methods and procedures. |
| 6         | Operation of the processing system for Low-Pressure Sodium (SOx) Lamps                                                       | Now covered by condition 3.5.1(b).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## Schedule 2 - Waste types

**Table S2.1 Permitted waste types and quantities for Installation (listed activities)**

| <b>Maximum quantity</b> | <b>19,000 tonnes per annum</b>                                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Waste code</b>       | <b>Description</b>                                                                                                                |
| 16 01 08*               | Components containing mercury                                                                                                     |
| 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 15*               | Hazardous components removed from discarded equipment                                                                             |
| 16 02 16                | components removed from discarded equipment other than those mentioned in 16 02 15                                                |
| 19 12 11*               | Other wastes (including mixtures of material) from mechanical treatment of waste containing dangerous substances                  |
|                         | Namely Hg bearing phosphor powder derived from the treatment of fluorescent tubes. 20 01 21* and 16 02 13*                        |
| 20 01 21*               | Fluorescent tubes and other mercury-containing waste                                                                              |
| 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 S2.2 Permitted waste types and quantities for waste operations**

| <b>Maximum quantity</b> | <b>75,000 tonnes per annum</b>                                                                 |
|-------------------------|------------------------------------------------------------------------------------------------|
| <b>Waste code</b>       | <b>Description</b>                                                                             |
| 09 01 10                | Single use cameras without batteries                                                           |
| 09 01 11*               | Single use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03             |
| 09 01 12                | Single use cameras containing batteries other than those mentioned in 09 01 11                 |
| 16 02 09*               | Transformers and capacitors containing PCB's                                                   |
| 16 02 10*               | Discarded equipment containing or contaminated by PCB's other than those mentioned in 16 02 09 |
| 16 02 11*               | discarded equipment containing chlorofluorocarbons, HCFC, HFC                                  |
| 16 02 12*               | Discarded equipment containing asbestos                                                        |
| 16 02 13*               | Discarded equipment containing hazardous components other than those 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 15*               | Hazardous components removed from discarded equipment                                          |
| 16 02 16                | Components removed from discarded equipment other than those mentioned in 16 02 15             |
| 16 06 01*               | Lead batteries                                                                                 |
| 16 06 02*               | Ni-Cd batteries                                                                                |
| 16 06 03*               | Mercury containing batteries                                                                   |
| 16 06 04                | Alkaline batteries (except 16 06 03)                                                           |
| 16 06 05                | Other batteries and accumulators                                                               |
| 20 01 21*               | fluorescent tubes and other mercury-containing waste                                           |
| 20 01 23*               | discarded equipment containing chlorofluorocarbons                                             |

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

|                         |                                                                                                                                         |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Maximum quantity</b> | <b>75,000 tonnes per annum</b>                                                                                                          |
| <b>Waste code</b>       | <b>Description</b>                                                                                                                      |
| 20 01 33*               | Batteries and accumulators included in 1606 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 35*               | Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23                                       |
| 20 01 36                | discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35                             |

## Schedule 3 – Emissions and monitoring

**Table S3.1 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements**

| Emission point ref. & location                  | Parameter | Source                            | Limit (incl. unit) | Reference Period | Monitoring frequency | Monitoring standard or method |
|-------------------------------------------------|-----------|-----------------------------------|--------------------|------------------|----------------------|-------------------------------|
| Soakaways S2, S3, S4 on site plan in schedule 7 | None      | Uncontaminated surface water only | No Limit           | None             | None                 | None specified                |

**Table S3.2 Point source emissions to sewer, emission limits and monitoring requirements**

| Emission point ref. & location                                           | Parameter | Source                            | Limit (incl. Unit) | Reference period | Monitoring frequency | Monitoring standard or method |
|--------------------------------------------------------------------------|-----------|-----------------------------------|--------------------|------------------|----------------------|-------------------------------|
| S1 on site plan in schedule 7 emission to Yorkshire Water combined sewer | None      | Uncontaminated surface water only | No Limit           | None             | None                 | None specified                |

**Table S3.3 Noise monitoring requirements**

| Location or description of point of measurement          | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications                                                                                                                                                 |
|----------------------------------------------------------|-----------|----------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Perimeter noise survey at the nearest sensitive receptor | Noise     | Annually             | BS 4142:1997                  | All processing equipment to be operating throughout duration of monitoring.<br><br>First survey to take place within 2 months of the date of issue of the variation. |

**Table S3.4 Process monitoring requirements**

| Emission point reference or source or description of point of measurement | Parameter      | Monitoring frequency | Monitoring standard or method            | Other specifications                                            |
|---------------------------------------------------------------------------|----------------|----------------------|------------------------------------------|-----------------------------------------------------------------|
| Retort oven door                                                          | Mercury Vapour | Weekly               | To be agreed with the Environment Agency | Measurement to be taken when opening oven door after processing |

**Table S3.4 Process monitoring requirements**

| <b>Emission point reference or source or description of point of measurement</b> | <b>Parameter</b>                        | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b>     | <b>Other specifications</b>                                              |
|----------------------------------------------------------------------------------|-----------------------------------------|-----------------------------|------------------------------------------|--------------------------------------------------------------------------|
| Retort water re-circulation tank                                                 | Mercury vapour                          | Weekly                      | To be agreed with the Environment Agency | Measurement to be taken above water re-circulation tank during operation |
| Pre treated phosphor powder                                                      | Mercury content                         | Every 6 months              | To be agreed with the Environment Agency | None                                                                     |
| Post treated phosphor powders                                                    | Mercury content                         | Every 6 months              | To be agreed with the Environment Agency | None                                                                     |
| WEEE plant ultra web filter unit                                                 | Differential pressure across the filter | Continuous                  | -                                        | -                                                                        |
| Lamp plant Ultra web filter unit                                                 | Differential pressure across the filter | Continuous                  | -                                        | -                                                                        |
| Retort oven condensate                                                           | Mercury content (mg/kg)                 | Every 6 months              | To be agreed with the Environment Agency | -                                                                        |
| Processed glass from lamp plant                                                  | Mercury content (mg/kg)                 | Every 6 months              | To be agreed with the Environment Agency |                                                                          |
| Processed metal, mica, ceramics and plastics from lamp plant                     | Mercury content (mg/kg)                 | Every 6 months              | To be agreed with the Environment Agency | -                                                                        |
| Processed plastics from WEEE plant                                               | Mercury content (mg/kg)                 | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of WEEE other than FPDs                          |
| Processed metal from WEEE plant                                                  | Mercury content (mg/kg)                 | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of WEEE other than FPDs                          |
| WEEE plant 2 mm fines                                                            | Mercury content (mg/kg)                 | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of FPDs only                                     |
| WEEE plant 5 mm fines                                                            | Mercury content (mg/kg)                 | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of FPDs only                                     |

**Table S3.4 Process monitoring requirements**

| <b>Emission point reference or source or description of point of measurement</b> | <b>Parameter</b>                  | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b>     | <b>Other specifications</b>          |
|----------------------------------------------------------------------------------|-----------------------------------|-----------------------------|------------------------------------------|--------------------------------------|
| WEEE plant process dust                                                          | Mercury content (mg/kg)           | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of FPDs only |
| WEEE plant plastics                                                              | Mercury content (mg/kg)           | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of FPDs only |
| WEEE plant printed circuit boards                                                | Mercury content (mg/kg)           | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of FPDs only |
| WEEE plant process by-product (PBP)                                              | Mercury content (mg/kg)           | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of FPDs only |
| WEEE plant metals                                                                | Mercury content (mg/kg)           | Every 6 months              | To be agreed with the Environment Agency | Arising from processing of FPDs only |
| Point A1 on site plan in Schedule 2 from the WEEE plant filter unit exit duct    | Particulate matter                | Every 3 months              | BS EN 13284-1                            | Reference period is 1 hour.          |
| Point A1 on site plan in Schedule 2 from the WEEE plant filter unit exit duct    | Particulate lead                  | Every 3 months              | To be agreed with the Environment Agency | Reference period is 1 hour.          |
| Point A1 on site plan in Schedule 2 from the WEEE plant filter unit exit duct    | Mercury and its compounds (as Hg) | Every 3 months              | BS EN 13211                              | Reference period is 1 hour.          |
| A2 [Point A2 on site plan in schedule 7] from Lamp plant filter unit exit duct   | Particulate matter                | Every 3 months              | BS EN 13284-1                            | Reference period is 1 hour.          |
| A2 [Point A2 on site plan in schedule 7] Lamp plant filter unit exit duct        | Mercury and its compounds (as Hg) | Every 3 months              | BS EN 13211                              | Reference period is 1 hour.          |
| A2 [Point A2 on site plan in schedule 7] from Lamp plant filter unit exit duct   | Mercury vapour                    | Daily                       | To be agreed with the Environment Agency | Reference period is 1 hour.          |
| A2 [Point A2 on site plan in schedule 7] from Lamp plant filter unit exit duct   | Cadmium (total)                   | Every 6 months              | BS EN 14385                              | Reference period is 1 hour.          |

**Table S3.4 Process monitoring requirements**

| <b>Emission point reference or source or description of point of measurement</b>   | <b>Parameter</b>                  | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b>     | <b>Other specifications</b> |
|------------------------------------------------------------------------------------|-----------------------------------|-----------------------------|------------------------------------------|-----------------------------|
| A3 [Point A3 on site plan in schedule 7] from Retort adsorber exit duct            | Mercury and its compounds (as Hg) | Every 3 months              | BS EN 13211                              | Reference period is 1 hour. |
| A3 [Point A3 on site plan in schedule 7] from Retort adsorber exit duct            | Cadmium (total)                   | Every 6 months              | BS EN 14385                              | Every 6 months              |
| A4 [Point A4 on site plan in schedule 7] from General LEV system exhaust exit duct | Mercury and its compounds (as Hg) | Every 3 months              | BS EN 13211                              | Reference period is 1 hour. |
| A4 [Point A4 on site plan in schedule 7] from General LEV system exhaust exit duct | Mercury vapour                    | Daily                       | To be agreed with the Environment Agency | None                        |
| A4 [Point A4 on site plan in schedule 7] from General LEV system exhaust exit duct | Cadmium (total)                   | Every 6 months              | BS EN 14385                              | Every 6 months              |
| A4 [Point A4 on site plan in schedule 7] from General LEV system exhaust exit duct | Particulate lead                  | Every 3 months              | To be agreed with the Environment Agency | Reference period is 1 hour. |
| Retort flue exit point post secondary carbon adsorber                              | Mercury vapour                    | Daily                       | To be agreed with the Environment Agency | Reference period is 1 hour. |

**Table S3.5 Ambient air monitoring requirements**

| <b>Location or description of point of measurement</b> | <b>Parameter</b> | <b>Monitoring frequency</b> | <b>Monitoring standard or method</b>                                                                                                                                                              | <b>Other specifications</b>                                                      |
|--------------------------------------------------------|------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| As detailed in the Mercury Vapour Monitoring Plan      | Mercury vapour   | Every 6 months              | Pumped sampling onto denuder tube and trap; analysis by cold-vapour atomic fluorescence spectrophotometry (CV-AFS) in accordance with Environment Agency Technical Guidance Note (Monitoring) M8. | Pump calibrated to a set flow rate; SKC 226-17-1A tubes, containing Anasorb C300 |

## 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              |
|----------------------------------------------------------------------|----------------------------------------|------------------|----------------------------|
| Noise monitoring<br>Parameters as required by condition 3.5.1.       | As specified in Table S3.3.            | As per Note 1    | 01/01, 01/04, 01/07, 01/10 |
| Process monitoring<br>Parameters as required by condition 3.5.1.     | As specified in Table S3.4.            | As per Note 1    | 01/01, 01/04, 01/07, 01/10 |
| Ambient air monitoring<br>Parameters as required by condition 3.5.1. | As specified in Table S3.5.            | As per Note 1    | 01/01, 01/04, 01/07, 01/10 |

Note 1 – Quarterly for all parameters monitored at a daily, weekly, monthly or quarterly frequency or annually for all parameters monitored 6 monthly or annually.

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

| Parameter                                                                           | Units  |
|-------------------------------------------------------------------------------------|--------|
| Total waste processed                                                               | Tonnes |
| Total lamp waste processed                                                          | Tonnes |
| Total FPDs processed                                                                | Tonnes |
| Total dust produced for disposal or as otherwise agreed with the Environment Agency | Tonnes |
| Total lamp plant glass recovered                                                    | Tonnes |
| Total lamp plant metals recovered                                                   | Tonnes |
| Total lamp plant plastics recovered                                                 | Tonnes |
| Total treated phosphor powder for disposal                                          | Tonnes |
| Total treated phosphor powder recovered                                             | Tonnes |
| Total elemental mercury recovered                                                   | Kg     |

**Table S4.3 Performance parameters**

| Parameter                     | Frequency of assessment | Units          |
|-------------------------------|-------------------------|----------------|
| Total water usage             | Annually                | m <sup>3</sup> |
| Total energy usage            | Annually                | MWs            |
| Lamp plant energy usage       | Annually                | MWs            |
| WEEE plant energy usage       | Annually                | MWs            |
| Total mass release of mercury | Annually                | kg             |
| Total mass release of Cadmium | Annually                | kg             |

**Table S4.4 Reporting forms**

| <b>Media/parameter</b>       | <b>Reporting format</b>                                                         | <b>Date of form</b> |
|------------------------------|---------------------------------------------------------------------------------|---------------------|
| Water usage                  | Form water usage 1 or other form as agreed in writing by the Environment Agency | 25/01/13            |
| Energy usage                 | Form energy 1 or other form as agreed in writing by the Environment Agency      | 25/01/13            |
| Other performance indicators | Form performance 1 or other form as agreed in writing by the Environment Agency | 25/01/13            |

# Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

## Part A

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

### (a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

| To be notified within 24 hours of detection                      |  |
|------------------------------------------------------------------|--|
| Date and time of the event                                       |  |
| Reference or description of the location of the event            |  |
| Description of where any release into the environment took place |  |
| Substances(s) potentially released                               |  |
| Best estimate of the quantity or rate of release of substances   |  |
| Measures taken, or intended to be taken, to stop any emission    |  |
| Description of the failure or accident.                          |  |

### (b) Notification requirements for the breach of a limit

| To be notified within 24 hours of detection unless otherwise specified below |  |
|------------------------------------------------------------------------------|--|
| Emission point reference/ source                                             |  |
| Parameter(s)                                                                 |  |
| Limit                                                                        |  |
| Measured value and uncertainty                                               |  |
| Date and time of monitoring                                                  |  |
| Measures taken, or intended to be taken, to stop the emission                |  |

| Time periods for notification following detection of a breach of a limit |                     |
|--------------------------------------------------------------------------|---------------------|
| Parameter                                                                | Notification period |
|                                                                          |                     |
|                                                                          |                     |
|                                                                          |                     |

| (c) Notification requirements for the detection of any significant adverse environmental effect |  |
|-------------------------------------------------------------------------------------------------|--|
| To be notified within 24 hours of detection                                                     |  |
| Description of where the effect on the environment was detected                                 |  |
| Substances(s) detected                                                                          |  |
| Concentrations of substances detected                                                           |  |
| Date of monitoring/sampling                                                                     |  |

### Part B - to be submitted as soon as practicable

|                                                                                                                                                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Any more accurate information on the matters for notification under Part A.                                                                            |  |
| Measures taken, or intended to be taken, to prevent a recurrence of the incident                                                                       |  |
| Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission |  |
| The dates of any unauthorised emissions from the facility in the preceding 24 months.                                                                  |  |

|                  |  |
|------------------|--|
| <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.

*“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 27<sup>th</sup> November 2006, entitled “Guidance on Best Available Treatment, Recovery and Recycling Techniques (BATRR) and Treatment of Waste Electrical and Electronic Equipment (WEEE);

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

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

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

*“D”* means a disposal operation 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.

*“End-of-Life Vehicles Directive”* means Directive 2000/53/EC of the European Parliament and Council of 18 September 2000 on end-of-life vehicles.

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

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

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

*“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).

*“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).

*“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.

*“nearest sensitive receptors”* means the nearest place to the composting operations where people are likely to be for prolonged or frequent periods. This term would therefore apply to dwellings (including any associated gardens) and to workplaces where workers would frequently be present. It does not apply to the operators of composting facilities or their staff while carrying out the composting operation as their health is covered by Health and Safety legislation.

*“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.

*“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.

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

*“Solvent Emissions Directive”* means Directive 1999/13/EC (as amended by Directive 2004/42/EC) on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations.

*“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 2002/96/EC of the European Parliament and of the Council of 27<sup>th</sup> January 2003 on waste electrical and electronic equipment (WEEE) as amended by Directive 2003/108/EC of the European Parliament and of the Council of 8<sup>th</sup> December 2003 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:

- (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



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### Key:

-  Emission Point A1: **Internal** Emission to Air: WEEE Plant LEV Duct (post carbon filter)
-  Emission Point A2: **Internal** Emission to Air: Lamp Plant LEV Duct (post carbon filter)
-  Emission Point A3: **Internal** Emission to Air: S.Valley Mercury Retort Flue (post carbon filter)
-  Emission Point A4: **Internal** Emission to Air: General LEV System Duct (post carbon filter)
-  Emission Point S1: Foul Water Drain to Sewer on Crossley Lane
-  Emission Point S2: Surface Water Soakaway
-  Emission Point S3: Surface Water Soakaway
-  Emission Point S4: Surface Water Sump

End of Permit.