

## **Environment Agency permitting decisions**

### **Bespoke permit**

We have decided to grant the permit for The Recycling Group Processing Facility operated by The Recycling Group Limited.

The permit number is EPR/ZP3534RD.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

### **Purpose of this document**

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

### **Structure of this document**

- Description of main features of the installation
- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

### **Description of the main features of the Installation**

The installation is located in Halesfield, Telford at National Grid Reference 370980,304567. The site is accessed via Halesfield 15, a road off Halesfield Industrial Estate. The site will recycle redundant electrical appliances and Waste Electronic and Electrical Equipment (WEEE).

The Part A1 activities classified under the Environmental Permitting Regulations taking place at the site are as follows:

- Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico chemical treatment under Schedule 5.3 Part A(1) a) (ii);
- Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving treatment in

- shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles under S5.4 A1 (b)(iv); and
- The storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in section 5.3 under Schedule 5.6 A1 (a).

There is also a waste activity at the installation covering the repair and refurbishment of WEEE.

The facility is designed to process up to 200,000 tonnes of waste annually, which will primarily consist of fridges and general electronic equipment from domestic sources. Some industrial and commercial waste will also be accepted. The facility has the capacity to treat over 10 tonnes per day of hazardous WEEE and over 50 tonnes per day of non hazardous WEEE.

All receipt, handling, storage, treatment and refurbishment of WEEE will take place on an impermeable surface with sealed drainage. All fuel and oil will be stored in bunded areas.

Waste is delivered to the site via road. WEEE will be manually dismantled to remove hazardous components prior to processing (for example, compressors, mercury switches and florescent tubes) and all of these components will be separated out and stored within the site building prior to offsite recovery. Some WEEE which is in a condition whereby it can be reused will be fixed, tested and then sold from a retail outlet on site.

The shredder used to treat WEEE can be operated on two settings, one of which will be used to treat only fridges and the other which can treat other types of WEEE excluding fridges.

For fridge treatment batches, fridges will be degassed and then the fridge carcasses will be shredded before being sent offsite for recovery. The shredding system is enclosed and made inert through the input of nitrogen. Volatile organic compounds (VOCs) released by the shredding plant will be captured in a cryogenic condensing plant and all remaining air will be vented to air via a two phase molecular sieve abatement system. The filters systems and the VOC recovery plants will run continuously during the operation of the recycling plant. The shredded material is fed up a screw conveyor and the foam is sieved out and then dried before loading into bags. Any remaining metal is also removed from the waste stream by an eddy current separator. Emissions to air from the shredder will be to atmosphere through an 8m high stack outside of the building.

Under a different setting, the shredder can also be used to shred WEEE other than fridges (for example washing machines, tumble driers, ovens, microwaves). For this setting the degassing phase is bypassed and the shredding cycle is shorter.

There will be an emission point to air (emission point A2) from the dedusting plant associated with the metal separation process and an emission point (emission point A3) from the filter of the heavy parts separation process. Particulate emission limit values have been set for these emission points.

The annual treatment of WEEE through shredding will be 50,000 tonnes per year for hazardous waste and 100,000 tonnes per year for non-hazardous waste. Pre treatment of WEEE containing hazardous substances using manual processes will be at a maximum of 50,000 tonnes per year.

The maximum storage capacity for the site is 1,500 tonnes for hazardous waste and 2,000 tonnes for hazardous waste.

Drainage throughout the processing area and storage area will be through an interceptor strait to foul sewer under a discharge agreement with the water company. The external surface water run-off drainage will be via an interceptor to the surface water drain.

The site will have an Environmental Management System (EMS) certified to ISO 14001.

## **Key issues of the decision**

### **Emissions to air**

There are three point source emissions to air from the installation; one from the exhaust from the fridge gas emissions recovery plant and two from the dust filters associated with the metal separation plant. Emissions to air from the recovery plant will primarily consist of volatile organic compounds (VOCs) and chlorofluorocarbons (CFCs).

All gas collected via the main shredding plant will be processed via the cryo-condensation unit and collected in cylinders for offsite disposal.

Once the hazardous gases from the shredding plant (CFC, VOCs) have been removed, the remaining air from the process is dried and then pre treated in a scrubber. It is then sucked out of the shredder with the air of a compressor. It is then filtered through a two phase molecular sieve before being released to air via an 8m high stack. There are two sieves to enable continuous operation. The air flow is switched between the two sieves after a running time of approximately 2.5 hours. The sieve not in operation is then regenerated via a back flow of cleaned gas. The gas flow used for the regeneration process will be diverted back to the cryo-condensation process and then cleaned.

The operator has demonstrated that the releases from the process will be in line with the limits outlined in set out in our guidance. We have specified emissions limits and monitoring requirements into the permit for CFCs (5g per 100) and VOCs (hourly average) to ensure the operator maintains effective treatment of the gases released during the process. The average half hourly emissions of R11/R12 and pentane from the exhaust gas will be displayed on the operations desk. If this value exceeds 20mg/m<sup>3</sup> for 35 minutes (equivalent to approximately 4g per hour), the in feed of fridges will be stopped and a warning message at the operations desk will be issued. The root cause of the error will then be investigated and addressed.

The shredding filter is controlled by a computer system that can be accessed remotely. An alarm is sounded in the instances of any failures and a shutdown of the plant is initiated.

The equipment is operated at 4% oxygen. If the concentration of oxygen approaches the emission limit value, the nitrogen feed is increased. If this does not counteract the problem, the shredder will be switched off.

The filter systems and the emissions recovery plant run continuously during the operation of the recycling plant.

The shredding plant is completely enclosed with associated dust extraction.

There is no ecological Environmental Assessment Level for either particulates, VOCs or CFCs so no habitats impact assessment has been carried out. We do not consider that any substances emitted to air will be emitted in concentrations large enough to have any potential impact on habitats.

### **Site condition report**

The installation is located in Halesfield, Telford at National Grid Reference 370980,304567. The site is accessed via Halesfield 15, a road off Halesfield Industrial Estate.

The area adjacent to the site is industrial with commercial properties located to the south, east and west and the A4169 road to the north. To the west there is rough disused land across an embankment which was constructed in 1975 at the same time as the adjacent carpet factory. Two disused carpet factory buildings and two tarmac parking areas are located on the eastern side of the site. Historical mapping indicates that the site has previously been used as agricultural land.

The site is not in a Source Protection Zone. The nearest surface water feature is Mad Brook which was diverted and culverted in the 1970s when the industrial estate was constructed to run 250m to the east of the site. There is still a drain located 100m north of the site on the same route which Mad Brook originally ran. There are no groundwater abstractions within 500m of the installation.

The Environment Agency mapping system indicates that the southwest corner of the site is recorded within a Flood Zone 2 and 3 with an indicated risk of flooding from the original course of Mad Brook. The yard is surrounded by a six foot high earth bund which will provide protection to the site from external sources of flooding. The yard drainage has been designed to cope with rain water ingress to the site.

The British Geological Society mapping of the area shows that the site is underlain by Glacial Till. Underlying the drift deposits, the bedrock is from the Carboniferous Alveley member which is classified as a Secondary A Aquifer.

The site itself has remained relatively undeveloped and changes to ground levels are thought to have been introduced through addition of soil removed from the adjacent site.

10 trial pits were excavated both within the area of the existing developed site and also in the western area of filled ground. The samples were analysed by a

UKAS accredited laboratory. There were no exceedances of the relevant SGV/GAC for any of the compounds tested (including metals and polycyclic aromatic hydrocarbons). After inspection and sampling, the trial pits were back-filled with excavation arisings.

The Applicant has confirmed that no known pollutants were stored within the disused carpet factory buildings when they were in use. There are no records of pollution incidents at the site.

Based on the pollution prevention measures which will be put in place on site and the information provided in the site condition report, we agree with the applicants conclusions that risks to groundwater are low.

### **Containment**

All storage and treatment areas will be on impermeable surfaces. All fuel and waste oil will be stored in bunded areas. Drainage from the process and storage area will be through an interceptor strait to foul sewer under a discharge agreement with the water company. Drains are colour coded to indicate whether they are foul or surface water. Man holes, drains and the interceptor will be checked daily for blockages and damage.

### **Fire risk**

The operator submitted a fire prevention plan which describes how they intend to manage the risks associated with storing combustible wastes on site.

The plan outlines:

- Storage of waste, tonnages and separation distances
- Potential sources of ignition
- Prevention measures in place

We have assessed the operator's fire prevention plan and we are satisfied they have put appropriate measures in place to prevent fire. In order to ensure the site operates in line with the requirements of this plan we have incorporated it into the permit.

The operator has proposed the following key fire risk prevention and control measures:

- Drills of the Emergency action plans will be carried out every month to ensure that all systems are working correctly.
- The operator has appointed a company to undertake the annual fire extinguisher servicing and the records for this are held centrally.
- Spillage drums are situated at areas where oil is stored.

- Fire suppression equipment such as fire extinguishers and fire hoses are checked weekly by the site manager.
- To reduce the use of firewater where possible fire extinguishers are used which contain foam and powder.
- Weekly fire alarm tests.
- There are several fire hydrants at close proximity to the site which will give a water for the fire services in the event of a fire. The site also has its own mains water supply.
- The site is surrounded with a 125mm impermeable bund to contain major spills and firewater.
- When drains are covered no water will leave the site this will give management time to arrange pumping equipment and tankers to site for removal of firewater or spillage, if required.
- A copy of the substances stored on site and storage plan is situated at the security hut which would be given to emergency services upon their arrival to site.
- All Staff to be given emergency awareness training during their induction and all emergency procedures are explained.
- A review of all Emergency Action Plans to take place every 12 months or if a new process is installed. This review will analyse any drills that have taken place and highlight any problems with the Emergency Action Plans in place.

### **Waste acceptance**

Prior to receiving a delivery or entering into a contract with a waste carrier, the carrier will be required to provide a copy of a valid Waste Carriers Licence where required. Copies of licences will be held on site. An annual check will be carried out by the operator to ensure that Waste Carriers Licences are still valid.

Waste loads are delivered to the site by lorry. The driver is required to stop at reception with the relevant transfer note including the waste code, a written description of the waste carried, quantity, registration number and address of waste source. A visual check will be carried out to ensure that the waste is in line with the waste code and description. If the waste is not suitable for acceptance at the facility, the waste will be sent back to the producer, to another agreed site for disposal or if this is not practical at the time, the waste can be stored in the quarantine area prior to disposal elsewhere. Waste will be stored in the quarantine area for a maximum of 7 days.

When waste is accepted at the site, the site manager will instruct the driver where to unload the waste. The transfer notes will be logged and maintained on site. If there is any special handling for a particular load, for example if it is dusty, appropriate control procedures must be agreed.

The unloading and processing procedures cover the identification of each fridge type and how to deal with them. Any ammonia containing fridges will be sorted and sent off site for degassing.

If leaks or spills occur during unloading, they must be contained or cleaned up using clean soil, sand or proprietary granules and then removed from site for disposal. They must be detailed within the site diary.

### **Activity classification**

The application included the following activity:

*recycling or reclamation of hazardous inorganic materials other than metals or metal compounds under S5.3 A1 (a)(vi).*

We did not consider that this activity was relevant to the installation and have therefore not included this activity within the permit. It was also removed from the OPRA profile for the site.

## Annex 1: decision checklist

This document should be read in conjunction with the application, supporting information and permit/notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
<b>Receipt of submission</b>		
Confidential information	<p>A claim for commercial or industrial confidentiality has been made.</p> <p>We have not accepted the claim for confidentiality. We consider that the inclusion of the relevant information on the public register would not prejudice the applicant's interests to an unreasonable degree. The reasons for this are given in the notice of determination for the claim. The decision was taken in accordance with our guidance on commercial confidentiality.</p>	✓
Identifying confidential information	<p>We have not identified information provided as part of the application that we consider to be confidential. The decision was taken in accordance with our guidance on commercial confidentiality.</p>	✓
<b>Consultation</b>		
Scope of consultation	<p>The consultation requirements were identified and implemented. The decision was taken in accordance with our Public Participation Statement and our Working Together Agreements.</p> <p>For this application we consulted the following bodies:</p> <ul style="list-style-type: none"><li>• Health and Safety Executive</li><li>• Public Health England</li><li>• Food Standards Agency</li><li>• Local Authority – Environmental Health</li><li>• Local Fire and Rescue Service</li></ul>	✓
Responses to consultation and web publicising	<p>The web publicising and consultation responses (Annex 2) were taken into account in the decision.</p> <p>The decision was taken in accordance with our guidance.</p>	✓
<b>Operator</b>		
Control of the facility	<p>We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on operator competence.</p>	✓
<b>European Directives</b>		
Applicable directives	<p>All applicable European directives have been considered in the determination of the application.</p>	✓



Aspect considered	Justification / Detail	Criteria met Yes
<b>The site</b>		
Extent of the site of the facility	<p>The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility.</p> <p>A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.</p>	✓
Site condition report	<p>The operator has provided a description of the condition of the site.</p> <p>We consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under IED–guidance and templates (H5).</p>	✓
Biodiversity, Heritage, Landscape and Nature Conservation	<p>The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.</p> <p>There are no European sites within 10km of the installation. There are no Sites of Special Scientific Interest within 2km of the installation. There are six Local Wildlife Sites and two sites of ancient woodland within 2km of the installation, the nearest of which is 625m away.</p> <p>An assessment of the application and its potential to affect the sites has been carried out as part of the permitting process. We consider that the application will not affect the features of the sites. See key issues section above for further information.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p>	✓
<b>Environmental Risk Assessment and operating techniques</b>		
Environmental risk	<p>We have reviewed the operator's assessment of the environmental risk from the facility.</p> <p>The operator's risk assessment is satisfactory. See key issues section above for further information.</p>	✓
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p> <p>See key issues section for further information.</p>	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	We consider that the emission limits included in the installation permit reflect the BAT for the sector.	
<b>The permit conditions</b>		
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>Several waste types outlined within the permit application were not added to the permit. These applied to components that would be removed from fridges accepted on site and therefore would not be brought onto site under the waste code specified in the application.</p>	✓
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to include pre-operational conditions.</p> <p>Pre operational condition 1 has been imposed as there is the potential for the fugitive release of ODS or VOC emissions if the plant is not operated correctly. This condition therefore requires the operator to demonstrate they have an appropriate system in place to detect fugitive releases in order to demonstrate they are operating the equipment to a standard which results in no fugitive emissions.</p> <p>Pre operation condition 2 has been inserted into the permit to require the operator, prior to undertaking any shredding activities, to install an appropriate fire suppression system within the building. This will ensure in the event of a fire that the site can effectively prevent the spread of fire to other areas of the building.</p>	✓
Improvement conditions	<p>Based on the information in the application, we consider that we need to include an improvement condition.</p> <p>IC1 has been imposed as WEEE and metal shredding sites are considered to emit PM<sub>10</sub>, and PM<sub>2.5</sub> if not operated correctly. Therefore we require the operator to test Particulate emissions released from the pre-shredding and main fridge shredding plan to review the amount being expelled after abatement of the exhaust gas emissions.</p>	✓
Incorporating the application	We have specified that the applicant must operate the permit in accordance with descriptions in the application,	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	
Emission limits	<p>We have decided that emission limits should be set for the parameters listed in the permit.</p> <p>The following substances have been identified as being emitted in significant quantities and ELVs and technical measures have been set for those substances: CFCs and HCFCs, VOCs including cyclopentane and pentane and particulates.</p> <p>It is considered that the ELVs and technical measures described above will ensure that significant pollution of the environment is prevented and a high level of protection for the environment secured.</p>	✓
Monitoring	<p>We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.</p> <p>These monitoring requirements have been imposed in order to demonstrate compliance with the conditions of the permit for operations requiring the management of air emissions. We made these decisions in accordance with How to Comply with your Environmental Permit and Sector guidance Note S5.06 which are considered the most appropriate Technical Guidance Note for this activity.</p> <p>Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.</p>	✓
Reporting	<p>We have specified reporting in the permit.</p> <p>Reporting forms have been prepared to facilitate reporting of data in a consistent format. These reporting requirements are deemed sufficient and proportional for the installation. We made this decision in accordance with out guidance How to Comply with your Environmental Permit and Sector guidance Note S5.06.</p>	✓
<b>Operator Competence</b>		

Aspect considered	Justification / Detail	Criteria met Yes
Environment management system	There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with our guidance on operator competence.	✓
Technical competence	Technical competency is required for activities permitted. The operator is a member of an agreed scheme.	✓
Relevant convictions	<p>The National Enforcement Database has been checked to ensure that all relevant convictions have been declared.</p> <p>No relevant convictions were found. The operator satisfies the criteria outlined in our guidance on operator competence.</p>	✓
Financial provision	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions. The decision was taken in accordance with our guidance on operator competence.	✓

## Annex 2: Consultation and web publicising responses

Summary of responses to consultation and web publication and the way in which we have taken these into account in the determination process.

Response received from
Director of Public Health – Telford and Wrekin Council
Brief summary of issues raised
No response received
Summary of actions taken or show how this has been covered
No action required

Response on 11/05/16 received from
Public Health England
Brief summary of issues raised
Having reviewed the application documents, it was noted that the control measures for potential odour hazards in the 'Site Specific H1 Risk Assessment' appear to relate to noise. Furthermore, the document entitled, 'Operating Procedure No. 5' makes no reference to how any potential odour problems will be prevented or controlled. Consequently, we recommend that any Environmental Permit issued for this site should contain conditions to ensure that the site has an adequate odour management plan to prevent or control any potential emissions such that they do not impact upon public health.
Other than the above recommendation, and based solely on the information contained in the application provided, PHE has no significant concerns regarding risk to health of the local population from this proposed activity, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice.
Summary of actions taken or show how this has been covered
The permit contains standard condition 3.3 which specifies that the operator shall not cause odour and if odour was identified as an issue, the Environment Agency could request that the operator produce and put into place an odour management plan to control odour.

Response on 11/04/16 received from
Environmental Health – Telford and Wrekin Council
Brief summary of issues raised
The Telford and Wrekin Council Public Protection team are not aware of any noise or other amenity issues at the site.
Summary of actions taken or show how this has been covered
No further action required

Response received from
Shropshire Fire and Rescue Service

<b>Brief summary of issues raised</b>
If the site is well managed and works within the relevant licence conditions then Shropshire Fire and Rescue Service would purely enforce the relevant Fire Safety Legislation. An inspection of the premises would be generated appropriately once the works to convert any buildings had been carried out. If there is a change of use or material alterations carried out within the units, then Building Regulations would apply and we're also Statutory Consultants with regards to the building works and Fire Safety provisions within. We would usually consult with the Local Authority Building Control officers or Approved Inspectors and respond back to these bodies as well as the Applicant.
<b>Summary of actions taken or show how this has been covered</b>
A fire prevention plan was submitted in response to a Schedule 5 information request. This will be jointly reviewed by the Environment Agency and the Fire and Rescue Service (FRS) when on site to check that the FRS considers the plan sufficient.

<b>Response received from</b>
Food Standards Agency
<b>Brief summary of issues raised</b>
No response received
<b>Summary of actions taken or show how this has been covered</b>
No action required

<b>Response received from</b>
Health and Safety Executive
<b>Brief summary of issues raised</b>
No response received
<b>Summary of actions taken or show how this has been covered</b>
No action required

The application was also advertised on our website for 20 working days and no responses were received.