Permitting decisions

Variation

We have decided to grant the variation for Unit 1 Pelham Industrial Estate operated by S.A.R. Recycling Limited.

The variation number is EPR/CP3294LE/V009

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 provides a record of the decision making process. It:

- highlights key issues in the determination
- summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account

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

Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

Key issues of the decision

This variation amends the permit to recognise that the site has increased its processing capacity and has therefore fallen under Schedule 1 of the Environmental Permitting Regulation 2016 as an installation activity. The site will undertake the treatment of batteries and catalytic converters with an annual throughput of 35,000 tonnes per year.

Acceptance of waste

The operator has confirmed that they will receive waste at the site in a bunded delivery area outside warehouse 1 and 2 and will receive bulk loads in a bulk loading bay within the loading area of unit 2. The bunded receipt area and bulk delivery area are served by a concrete impermeable floor with a sealed collection sump, all which are coated with an epoxy resin resistant to acid. The operator has demonstrated they have appropriate rejection and quarantine procedures in place to prevent the receipt of incompatible waste and have procedures in place to prevent the damage or leakage of liquid from waste during the acceptance stage. We have reviewed the operator's proposals in line with the requirements of SGN 5.06 and based on the information provide we are satisfied the operators procedures meet the requirements of our guidance.

Treatment activities

Section 5.3 A(1)(a)(ii) cutting of batteries

The site will accept industrial and automotive batteries which are manually placed onto a roller which feeds the cutting circular saw. This cuts the top/bottom and or sides from the batteries. The components are then separated and sent to supporting activities for further processing. The acid from the batteries drains to an acid tank located adjacent to the cutting bench.

The operator has compared methods of battery processing such as cutting and shredding and has determined that for industrial and automotive batteries the cutting method can be considered to represent best available techniques (BAT) as it allows clean cuts and access to the component parts of the battery for segregation.

This activity takes place under a Local Exhaust Ventilation (LEV) system served by a wet chemical filtration abatement system via emission point LEV01. The wet scrubber alongside a dust filter will remove sulphuric acid and lead dusts from the air stream prior to discharge.

We have reviewed the operator's proposals in line of SGN 5.06 and based on the procedures provided we are satisfied they meet the requirement of our guidance in regards to site specific BAT.

Section 5.3 A(1)(a)(ii) shredding of batteries

Small batteries received at the site are fed into a dry shredder unit and the drained, shredded material is storage in battery boxes for despatch offsite for recovery elsewhere.

The liquid from the small battery shredder drains to an acid sump. The sump will be periodically emptied via pump into an IBC and then discharged into the settlement tank which feeds the acid storage tank. This all takes place on an acid resistance impermeable surface with sealed drainage

Smaller batteries are processed via a shredder as the size of the batteries makes effective cutting impractical. It also minimises handling of the batteries and equipment breakdown rates as well as allowing faster processing of the waste stream.

This activity takes place under a Local Exhaust Ventilation (LEV) system served by a wet chemical filtration abatement system via emission point LEV01 The wet scrubber will remove sulphuric acid and lead dusts from the air stream prior to discharge.

We have reviewed the operator's proposals in line with SGN 5.06 and based on the procedures provided we are satisfied they meet the requirement of our guidance in regards to BAT.

Section 5.3 A(1)(a)(ii) wet shredding of plastic battery boxes
Plastic cases from the battery cutting process are conveyed to the wet shredder. The shred is then conveyed to a washing plant for further washing and caustic dosing. The operator has chosen to use a wet shredder and washer to minimise dust emissions from the shredding process, allow removal and neutralisation of acid contamination and remove any lead paste for settlement and collection. Spent wash water is tested for pH and bulked in the acid treatment tank.

We have reviewed the operator's proposals in line with the requirements of SGN 5.06 and we are satisfied that all emissions from the process are appropriately managed and that the requirements of BAT as outlined in SGN 5.06 have been implemented.

Section 5.3 A(1)(a)(vi) Recycling of Catalytic converters
The site will accept hazardous waste in the form of refractory ceramic fibre (RCF) contained within catalytic converters as a protective matting. Waste containing RCF will be sorted and subjected to the shearing process to remove outer metal casings and the RCF matting will be removed.

Measures to manage the risk associated with this waste include but are not limited to:

- All hazardous waste received and processed on the site will be stored in rigid containers on a concrete floor in a designated storage area within an enclosed building. RCF matting removed from converter units will be double bagged, drummed and labelled appropriately with a unique reference, date and hazard classification (HP07 for RCF matting).
- Mechanical treatment of converters containing RCF and manual removal of RCF from converters will take place under local extraction ventilation recirculation system with a High Efficiency Particulate Air (HEPA) filter.

We have assessed the operator's proposal for managing hazardous waste and emissions from the treatment process and we are satisfied the operators proposals are in line with BAT as outlined in our guidance.

Catalytic converters processing directly associated activity - recycling of non-hazardous catalytic converters

As the hazardous classification of catalytic converters can only be truly determined once the casing is opened and RCF matting identified, a directly associated activity has been included. This will allow the processing of catalytic converters which once opened are identified as non-hazardous (e.g. do not containing RCF matting).

Catalytic converters processing directly associated activity – recycling of honeycomb ceramic cores.

This activity covers the processing of ceramic cores from catalytic converters that are being recycled on site. During receipt of catalytic converters, ceramic cores from damaged converters are also received with waste deliveries. We have included a waste code in the permit to allow these to be received alongside catalytic converters and processed alongside with the ceramic cores recovered on site. We have inserted a restriction in to the waste code table to ensure that the waste received under this activity result from catalytic converters only.

Specific operating techniques for directly associated activities

Drying/draining of lead plates
Lead plates removed from the cut batteries are taken to a drying/draining area. Bags are first allowed to drain in a specific area which can take a maximum of three bags at a time. They are then stacked in waste storage bays to dry. All aspects of this process take place on an impermeable surface with sealed drainage, which includes an acid resistant resin coated floor. Any acid which drains from this process is captured and collected for bulking in the acid tank.

As the operator has demonstrated that all potential emissions from this process are contained utilising appropriate containment infrastructure in line with the requirements of our guidance SGN 5.06 and we are satisfied the operator has implemented BAT techniques.

Drainage, containment and storage of hazardous waste under section 5.6

Surfacing and drainage

The operator has outlined that all treatment of hazardous waste batteries will take place on an impermeable surface with sealed drainage. This includes a concrete floor with sealed collection sumps. The floor will be coated with a resin resistant to acid attack. All acid removed from waste onsite will be collected in a drainage system and is either directed to the acid tanker or collected in sumps where it will be pumped out and deposited in the acid tank.

In order to ensure the site's existing impermeable surface is up to the appropriate standards expected in our guidance to provide sufficient containment of acid we have inserted a improvement condition (IC2) which requires the operator to review the flooring and the coating materials to ensure the infrastructure is in full working order and any remedial action required is taken within an appropriate timescale.

Based on the measures the operator has put in place at the site and the improvement condition inserted into the permit to review the site containment and demonstrate it is in appropriate working order, we are satisfied that sufficient containment measures are in place to prevent emissions to ground.

Acid tank and collection of acid

The acid tank is an above ground tank, located within a building, in a bunded area, on an impermeable surface with sealed drainage. The operator has confirmed the secondary bunding will contain 110% of the tanks capacity and is coated in an acid resistant epoxy resin. The acid tank is emptied via a pipework to a stainless steel tanker connection. All connections are within bunded areas. Export tankers collect via an external collection point. The operator has confirmed that regular inspection procures are in place for the bunding. The operator has also demonstrated tertiary containment is in place in the event of bund failure. This is in the form of a building with an impermeable surface with sealed drainage.

As this is an operational site, in order to ensure the site's current bunding meets the appropriate standards expected in practice, we have inserted an improvement condition (IC7). This will require the operator to review the tank bunding, demonstrate it is in full working order and propose any remedial action required which shall be undertaken within an appropriate timescale.

We have reviewed the acid tank and bunding in line with the requirements of our guidance SGN 5.06 and based on the techniques proposed by the operator and the incorporation of improvement condition IC7, we are satisfied that BAT techniques have been implemented to contain acid in the event of tank failure.

Storage of waste outside the building

General waste and scrap metal including metal casing removed from the catalytic converters is stored outside in dedicated skips, in the offloading area, in front of warehouse unit 3.

The operator has confirmed that the proposed wastes are currently stored in this area and considering the risk the non-hazardous dry wastes pose, they are provided with an impermeable surface with a sealable drainage system. A sealable system does not meet the requirement of the SGN 5.06 guidance for this type of activity drainage must be considered sealed. Therefore under improvement condition IC6 the operator will be required to review their existing drainage for the location where waste skips are stored outside and propose improvements which will achieve the requirements of our guidance. The operator will be required to propose improvements to the drainage system and implement the improvement in line with timescales agree with the

Environment Agency. Based on this we consider there is an existing potential risk which needs to be addressed and this will be managed through improvement condition IC6 to ensure appropriate BAT techniques are in place.

Noise emissions

In order to manage noise emissions from the site, the operator has provided a noise risk assessment which outlines the noise risks associated with the site, sensitive receptors and the measures the site will take to manage noise emissions. These include, but are not limited to:

- All treatment takes place within a building and are appropriately enclosed.
- Highest risk activities are subject to restricted operating times.
- All plant are subject to regular maintenance.
- The operator has a complaints procedure in place.
- Waste deliveries are undertaken to the north of the building which affords a level of noise protection.

We have assessed these techniques against the standards outlined in our guidance and are satisfied proposed measures are considered BAT for this type of site and the activities permitted. We have therefore incorporated the proposed operating techniques into table S1.2 - operating techniques which will require the operator to implement the measures as part of the conditions of the permit.

Dust emissions

In order to manage dust emissions from the site, the operator has produced a dust risk assessment and has outlined in their operating techniques the measures they will take to manage emissions. These include, but are not limited to:

- Enclosure of all treatment activities within a building
- Plant and equipment subject to regular maintenance.
- High risk plastic shredding plant operates using a wet shredding system.
- Local extraction ventilation points have high efficiency particulate scrubbers.
- High risk material e.g. Refractory ceramic fibre (RCF) when removed from catalytic converters is double bagged and contained.

We have assessed these techniques against the standards outlined in our guidance and are satisfied the proposed measures are considered BAT for this type of site and the activities permitted. We have therefore incorporated the proposed management plan into table S1.2 - operating techniques which will require the Operator to implement the measures as part of the conditions of the permit.

Air emissions

Local Extraction Ventilation

The site has five local exhaust ventilation (LEV) releases:

- Warehouse unit 2 - external emissions point LEV01 which serves the battery cutting and shredding processes.
- Warehouse unit 4 - external emissions point LEV03 which serves the laboratory fume cupboard.
- Warehouse unit 5 - external emissions point LEV02, LEV04 and LEV05 which serve the catalytic converters process line, hammer mill and shearing process.

LEV02 – 5 are for dust ventilation and are served by a High Efficiency Particulate Filter (HEPA) filter. We consider the filtration of air using HEPA filters to represent BAT.

LEV01 is for the ventilation of sulphuric acid and lead are served by a wet scrubbing system to remove sulphuric acid and lead emissions from the exhausted air. The operator has screened the emissions from this air discharge using our H1 assessment tool and the process contributions have screened out as not significant.

Wet scrubber BAT

The LEV system for the shredder is exhausted via emission point LEV01 which has a wet scrubber that uses sodium hydroxide to abate acid gases. There is also a particulate filter system on the

exhaust. This system serves the wet shredder on the plastics line, the cutter on the batteries line and the shredder used for small batteries. The operator has outlined the available options for abatement and demonstrated that the wet scrubber system is more appropriate considering the moisture content of the air stream. We have reviewed the operator's justification for use of a wet scrubber to abate emissions and we are satisfied the abatement proposal represents BAT for this process.

Fire management

The site operates as a hazardous waste treatment site therefore a Fire Prevention Plan is not required. However due to the nature of the battery storing and treatment process and that non-hazardous waste are produced by the process and stored the operator has outlined their operating techniques for managing and preventing fires. They have proposed to install a fire suppression system, identified firewater storage and outlined techniques for minimising the risk and identification of precursors to fire. Measures include:

- Daily stock report identifying the location of stock and quantities.
- Batteries onsite are stacked in appropriately design boxes which allows air flow over the contents in which are well ventilated buildings.
- Heat detectors are present in warehouse unit 1,2,3,4 and smoke detectors are in 4,5,6,7 which are maintained by a qualified third party.
- Fire water storage includes two 1500 litre storage sumps each in Warehouse unit 2, Warehouse unit 1 and bunded yard area include two 1500 litres sumps. An inflatable bund will be used to seal the surface water drain in the delivery yard which will be used to capture fire water. The capacity of the yard is 66,825 litres (Area, depth of kerb and depth to sump)

We have inserted an improvement condition (IC3) which requires the operator to propose to the Environment Agency within one month of permit issue, proposals for a suppressions systems. The operator will be required to install the chosen suppression system within timescales agreed with the Environment Agency. We have reviewed the operator's proposals and based on the techniques proposed and the improvement condition inserted into the permit we are satisfied that appropriate measures are in place to manage the risk of fire at the site

BAT conclusions

We have reviewed the application against the requirement of the latest BAT conclusions and we are satisfied the operator's proposals for monitoring, abatement and emissions meet the requirement of the relevant BAT point BAT 25 for mechanical treatment of waste.

The assessment of this application and the decisions made are based on existing hazardous waste sector guidance (SGN 5.06) which is due to be revised in line with the publication of the new BAT conclusions. The review of this guidance has the potential to revise the standards considered to represent Best Available Techniques for waste sites in the near future. Therefore there is the potential that some of the operational aspects of this site permitted under this application could be reviewed in the near future in regards to whether they continue to represent Best Available Techniques.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

Aspect considered	Decision
Permit conditions	
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit(s).
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. We are satisfied that the operator can accept these wastes for the following reasons: • they are suitable for the proposed activities • the proposed infrastructure is appropriate; and • the environmental risk assessment is acceptable.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. IC1 has been inserted to ensure the operator implements a tracking system for the battery boxes in line with requirement of SGN 5.06 IC2 As this is an operational waste site we have inserted this condition to ensure the operator undertakes a review of the existing resin floor coating to ensure it is fit for purpose in order to prevent damage to the concrete flooring and potential pollution of land. IC3 has been inserted to ensure the operator implements an appropriate fire suppression system in line with the requirements in line with the requirements of our fire prevention guidance. IC4 has been implemented to ensure the Operator undertakes a noise assessment during operation at the increased annual throughput to ensure that the techniques outlined in the application are effective and to determine in practice whether any additional measures are required to prevent pollution IC5 has been included because there is the potential for variability in the emissions from the process due to the air emissions from the site being from local exhaust extraction which services different pieces of plant on site. We have therefore inserted this improvement condition to require the operator to collect monitoring data for lead emissions from LEV01 to demonstrate at the increased capacities the emissions thresholds are consistent with the application and to if necessary use the data to implement emissions limits which are appropriate in practice. IC6 has been included to improve the site surfacing. At present the operator stores non-hazardous, dry waste outside the building, in skips on an impermeable surface without sealed drainage. As this waste includes metal parts from end of life vehicles sites we are not satisfied that the existing infrastructure provides sufficient sealed drainage as required by our guidance. The operator will therefore be required to show how they will adapt their existing operational infrastructure in order to meet the requirement of our guidance to have a sealed drainage system.

Aspect considered	Decision
	IC7 has been included to ensure the operator undertakes a review of the acid tank bunding and its acid resistant coating in line with sector guidance and best available techniques. As the tank and bunding is existing, high risk, operational infrastructure we need a demonstration that the bunding construction is appropriate, in a good state of repair and as described within the application.
Emission limits	ELVs or technical measures based on BAT have been added for the following substances. Particulate Matter – This limit was derived from dust emissions limits for mechanical treatment of waste as outline in the BAT conclusions for the waste treatment sector. Lead (Pb) – A emissions limit to be agree has been added in line with the requirement of improvement condition IC5 which aims to establish an appropriate emissions limit taking into account the potential for variation in the emissions as a result of the of local ventilation extraction. The operator is required to compare this to the emissions limits in the application to determine where the limits screened out are consistent achieved and to set a limit in the permit to ensure the site maintains an emissions at level which are not significant and therefore unlikely to cause pollution.
Monitoring	We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified: Particulate Matter – once every six months (BAT 25) Lead (Pb) – Annually (BAT 25) We made these decisions in accordance with the Waste treatment BREF BAT conclusions Based on the information in the application, supporting documents and BAT technical standards which have been incorporated into the permit operating techniques, we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.
Reporting	We have added reporting in the permit for the following parameters: Particulate Matter Lead (Pb) We made these decisions in accordance with the waste treatment BREF BAT conclusions
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Technical competence	Technical competence is required for activities permitted. The operator is a member of an agreed scheme. We are satisfied that the operator is technically competent.

Aspect considered	Decision
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared.
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
Growth Duty	
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit. Paragraph 1.3 of the guidance says: "The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation." We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections. We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.