

# Permitting decisions

## Variation

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We have decided to grant the variation for GAP Waste Management operated by P A Moody Recycling Limited.

The variation number is EPR/EB3805KW/V002.

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
- shows how we have considered the [consultation responses](#)

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

## Environmental risk

A key risk associated with the addition of the cooling unit treatment plant is the explosion risk associated with the refrigerant gases that are released during the destruction of fridges. We are satisfied that the applicant has demonstrated that there is a robust automated system to detect and mitigate any explosive atmospheres during the destruction process – which involves monitoring gas concentrations and injecting inert nitrogen gas into the process or halting operations when the lower explosive limit (LEL) is breached. These procedures are designed to maintain gas concentrations (namely pentane) below the LEL and ensure compliance with condition 2.3.8 of the permit.

## Operating techniques for assessed emissions to air

The cooling unit treatment plant that the operator has installed uses an adsorption system, whereby waste gas containing organic compounds such as VFCs/VHCs is led into an adsorption system. This type of system abates ozone depleting substances (ODS) and volatile organic compounds (VOCs) contained in waste gases and emits a residual amount via an exhaust. As per the 2018 Waste Treatment BAT Conclusions, this system represents technique c. of the BAT 29 table under section 2.3.1. *Emissions to air*. The applicant has also confirmed in an email dated: 30/10/18 that the installation will comply with the latest BAT AELs for total suspended particulates, CFCs and total volatile organic compounds. We are therefore satisfied that the techniques used by the operator to minimise these emissions represent BAT for the sector.

## Noise management

Due to the nature of the operations undertaken at the installation, a noise impact assessment and noise management plan were submitted as part of the application. Our air quality modelling assessment unit have reviewed the noise impact assessment (NIA) and agree with the conclusions.

The NIA concluded that the addition of the internal fridge treatment plant would not result in any adverse impacts to residential receptors. It did, however, predict an adverse impact at a local commercial receptor whereby the increased noise level would result in a +10.4 dB excess of rating over the background sound level. Due to this high excess, mitigation has been proposed including a 3.5 meter closed board fence around the external shredding and sorting line and all windows and doors are to be closed at all times except from when access is required. Accounting for these mitigation measures, the calculated increased noise level decreases to +5.8 dB excess of rating over the background sound level at the commercial receptor.

Since BS4142:2014 does not apply to commercial receptors, we used the WHO Guidelines for Community Noise to compare the increased sound levels against. When assessing noise levels from the site against WHO guideline levels, the existing ambient sound levels (residual sound levels) needed to be included. The measured residual sound level at the commercial receptors is over 62 dB(A). In comparison the highest specific sound level from the facility is 56.4 dB(A), without mitigation, at the commercial receptors. This would lead to an imperceptible and insignificant increase in the ambient sound level when the specific sound level is logarithmically added to the residual sound level. This is demonstrated in section 4.3 of the NIA. Additionally, the WHO guideline that appears most representative for the commercial receptor is for industrial, commercial, shopping and traffic areas and sets a level of 70 dB(A). The predicted specific sound from the facility is well below any level that could cause an exceedance of this guideline with the residual sound level. Based on the residential assessment being low risk following the BS4142:2014 assessment, and the commercial receptors also being low risk when compared to the WHO guideline level, we can conclude that the applicant's proposals are acceptable as long as they operate within the terms of their noise management plan, which has been incorporated as an operating technique by table S1.2 of the permit.

## Fire prevention plan (FPP)

In the FPP, the applicant has proposed alternate measures for section 14 *Suppressing fires*. The addition of the cooling unit treatment plant means that fridges will need to be stored within the treatment building and therefore a proportionate fire suppression system is required, as per the guidance. The applicant has

demonstrated that the need for an automated suppression system is not proportionate to the risk posed by the intact fridges. Plan (3) of the FPP shows that the intact fridges are to be stored in two 40m<sup>3</sup> blocks and that a 6m fire break will be maintained between other waste piles and internal walls. The FPP also states that fridges will be stored for a maximum of 48 hours before treatment, that no hot works or ignition sources will be exposed to the fridge stockpiles and that the fridges will not be stacked and will be able to be moved by hand or forklift truck. Accounting for this – the fridges will be able to be quickly accessed, isolated and extinguished using the site's hose and extinguishers or by the local fire service. The site is also staffed 24 hours a day and the building has a bespoke, UKAS accredited, zoned alarm system which alerts the designated site managers and all staff on site via an audible alarm. Upon detection of a fire site staff will, if safe to do so, attempt to extinguish the fire. In situations where this is not possible, the fire service is to be called immediately. There are three fire stations within 4.4 miles of the installation. Plan (5) of the FPP shows several 3m wide doors which allow the fire service access to the fridge storage area should they need to fight a fire. Based on the quick turnaround times, quantity of fridges stored and ease of access to the fridge stockpiles – we have concluded that the measures outlined above represent alternative measures which meet the standards of the FPP guidance. All other aspects of the FPP meet the requirements of our guidance.

### **Polyurethane (PUR) foam treatment and storage**

The fridge treatment process which the applicant proposes to undertake involves the separation and degassing of PUR foam from shredded fridges. Following treatment and removal of the blowing agent, the PUR foam is still highly combustible so we have scrutinised the operator's measures for reducing fire risks associated with PUR foam. They have confirmed that once the PUR foam is separated from other ferrous and non-ferrous components of shredded fridges, it is fed into a pelletiser and cooled prior to being bulk loaded into 2m<sup>3</sup> bags. The PUR bagging station is equipped with its own automated fire detection and suppression system. Once bagged, the PUR foam is stored externally for a maximum of one week within a 150m<sup>3</sup> concrete bay, which will hold a maximum of 30 bags at any one time or for a maximum of 72 hours in a standard articulated trailer, which has a maximum capacity of 24 bags at any one time. In the FPP the operator has also confirmed that the foam stock piles are kept away from any ignition sources and that they are subject to 3 checks with a thermal image camera during the day shift and one check at night by the security guard. The action temperature for the foam is 70 degrees centigrade, this is well below the 415 degrees centigrade ignition temperature. If this action temperature is reached, then precautionary actions are taken to cool the bags. We are satisfied that the PUR foam stockpiles are highly unlikely to self-heat and that as long as ignition sources are kept away and regular checks are undertaken, then the applicant's proposals are acceptable. We are satisfied that the measures presented by the operator represent alternative measures which meet the standards of the FPP guidance.

### **Emission limits**

The latest Waste Treatment BAT Conclusions (August 2018) sets BAT AELs and monitoring requirements for emissions of total suspended particulates (dust), CFCs and total organic compounds (including HCFCs, HFCs and HCs) from activities involving the treatment of WEEE containing VFCs and VHCs (volatile fluorinated and volatile halogenated compounds). The operator confirmed that they would be able to comply with these limits from the date of permit issue (email dated: 30/10/18). We have therefore included these limits and associated monitoring requirements in table S3.1 of the permit and the operator is expected to be compliant with these limits from the day of permit issue.

## Decision checklist

Aspect considered	Decision
<b>Receipt of application</b>	
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.
<b>Consultation</b>	
Consultation	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> <li>• Local Authority (Gateshead) – Planning;</li> <li>• Local Authority (Gateshead) – Environmental Health;</li> <li>• Fire and Rescue Service; and</li> <li>• Health and Safety Executive (HSE).</li> </ul> <p>The comments and our responses are summarised in the <a href="#">consultation section</a>.</p>
<b>The facility</b>	
The regulated facility	<p>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.</p> <p>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.</p>
<b>The site</b>	
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. The plan is included in the permit.
Site condition report	The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.
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>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.</p>

Aspect considered	Decision
	We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.
<b>Environmental risk assessment</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.</p> <p>See <a href="#">key issues</a> section for further details.</p>
<b>Operating techniques</b>	
General operating techniques	<p>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.</p> <p>The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.</p>
Operating techniques for assessed emissions to air	<p>The operator has used H1 to quantify emissions to air but there aren't any environmental standards for CFCs or TVOCs. These emissions have been considered against the relevant BAT AELs, as set out in the latest Waste Treatment BAT Conclusions, and we are satisfied that these will be met.</p> <p>The BAT AELs set by the BAT Conclusions represent BAT for the prevention and minimisation of these emissions.</p> <p>See <a href="#">key issues</a> section for further details.</p>
Noise management	<p>We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.</p> <p>We consider that the noise management plan is satisfactory.</p> <p>See <a href="#">key issues</a> section for further details.</p>
Fire prevention plan (FPP)	<p>We have assessed the FPP and are satisfied that with the exception of section 14 <i>Suppressing fires</i>, it meets the measures and objectives set out in the FPP guidance.</p> <p>For section 14 <i>Suppressing fires</i>, the plan sets out alternative measures that we consider meet the objectives of the guidance.</p> <p>See <a href="#">key issues</a> section for further details.</p>
<b>Permit conditions</b>	
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 permits.
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

Aspect considered	Decision
	<p>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> <li>• they are suitable for the proposed activities;</li> <li>• the proposed infrastructure is appropriate; and</li> <li>• the environmental risk assessment is acceptable.</li> </ul> <p>We made these decisions with respect to waste types in accordance with Sector Guidance Note IPPC S5.06.</p>
Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose a pre-operational condition.</p> <p>This pre-operational condition has been included to ensure that during commissioning the treatment plant is able to operate in compliance with the standards for pre-destruction and destruction of refrigeration units – as required by table S1.5 of the permit.</p>
Improvement programme	<p>Based on the information in the application, we consider that we need to impose an improvement programme.</p> <p>We have imposed an improvement programme to ensure that the operator is able to demonstrate that no fugitive releases to air of refrigerant or blowing agent gases occur during the stage 1 and stage 2 processing of refrigeration units.</p>
Emission limits	<p>Emission Limit Values (ELVs) have been added for the following substances:</p> <ul style="list-style-type: none"> <li>• Total suspended particulates;</li> <li>• CFCs; and</li> <li>• Total organic compounds (including HCFCs, HFCs and HCs).</li> </ul> <p>These limits have been added so that the site complies with the latest BAT Associated Emission Levels (AELs) as stipulated by the 2018 Waste Treatment BAT Conclusions from the day of permit issue.</p> <p>See <a href="#">key issues</a> section for further details.</p>
Monitoring	<p>We have decided that monitoring should be added for the following parameters, using the methods detailed and to the frequencies specified:</p> <ul style="list-style-type: none"> <li>• Total suspended particulates;</li> <li>• CFCs;</li> <li>• Total organic compounds (including HCFCs, HFCs and HCs);</li> </ul> <p>These monitoring requirements have been imposed in order to ensure that the installation complies with the latest monitoring requirements as stipulated by the 2018 Waste Treatment BAT Conclusions from the day of permit issue.</p> <p>We have also added process monitoring requirements, as per the latest waste metals and fridge treatment template, to table S3.2 for the following parameters:</p> <ul style="list-style-type: none"> <li>• Concentration of refrigerant in the oil (%w/w);</li> <li>• Refrigeration unit type;</li> </ul>

Aspect considered	Decision
	<ul style="list-style-type: none"> <li>• Refrigeration type;</li> <li>• Number of defective units;</li> <li>• Quantity of refrigerant collected over reporting period;</li> <li>• Quantities of residual materials from pre-destruction and destruction process;</li> <li>• Lower Explosive Limit (LEL) or Limiting Oxygen Concentration (LOC);</li> <li>• Quantity of foam remaining on the granulated metal after processing (%w/w);</li> <li>• Quantity of foam remaining on the granulated plastic after processing (%w/w);</li> <li>• Quantity of residual blowing agents remaining in the foam after processing (%w/w);</li> <li>• Blowing agent type;</li> <li>• Volume of panel processed; and</li> <li>• Quantity of blowing agent collected over reporting period.</li> </ul>
Reporting	<p>We have added reporting in the permit for the following parameters:</p> <ul style="list-style-type: none"> <li>• Results of independent conformance testing of emissions to air (CFCs, other volatile organic compounds and particulates) as required by table S3.1;</li> <li>• A summary of the residual waste materials removed from site, in the format of Appendix A;</li> <li>• A summary of the wastes processed and the efficiency of the processing operations, in the format of Appendix B;</li> <li>• A summary of the residual materials conformance testing, in the format of Appendix C;</li> <li>• Water usage</li> <li>• Energy usage; and</li> <li>• Total raw material used.</li> </ul> <p>These reporting requirements have been added to satisfy the requirement of the latest Waste Treatment BAT Conclusions and to reflect the standards set by the latest waste metals and fridge treatment permit template.</p>
<b>Operator competence</b>	
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	<p>Technical competence is required for activities permitted.</p> <p>The operator is a member of an agreed scheme.</p> <p>We are satisfied that the operator is technically competent.</p>
Relevant convictions	<p>The Case Management System and 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 in our guidance on operator competence.</p>

Aspect considered	Decision
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
<b>Growth Duty</b>	
Section 108 Deregulation Act 2015 – Growth duty	<p>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.</p> <p>Paragraph 1.3 of the guidance says:</p> <p>“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.”</p> <p>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.</p> <p>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.</p>



# Consultation

The following summarises the responses to our consultation with other organisations and our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

## Responses from organisations listed in the consultation section

<b>Response received from</b>
HSE
<b>Brief summary of issues raised</b>
No issues raised.
<b>Summary of actions taken or show how this has been covered</b>
None taken as no issues raised.

<b>No representations received from:</b>
<ul style="list-style-type: none"><li>• Local Authority (Gateshead) – Planning;</li><li>• Local Authority (Gateshead) – Environmental Health; and</li><li>• Fire and Rescue Service.</li></ul>