

Environment Agency permitting decisions

Bespoke permit

We have decided to grant the permit for Avanti Recycling Centre operated by Avanti Environmental Group Limited.

The permit number is EPR/DP3437AT.

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.

Description of the main features of the Installation

This permit authorises the recovery of non-hazardous waste with a capacity exceeding 75 tonnes per day involving the pre-treatment of waste for incineration or co-incineration under Schedule 1 S5.4 A1(b)(ii) of the Environmental Permitting (England and Wales)(Amendment) Regulations 2013.

The Avanti Recycling Centre is located within the Knowsley Business Park at Merseyside, L34 9HL (National Grid Reference SJ 43002 96405). The site is approximately 10km north east of Liverpool and 1 km to the north west of the village of Knowsley.

The waste treatment facility will process household, industrial, commercial and solid wastes to produce Refuse Derived Fuel (RDF) and Solid Recovered Fuel (SRF). The maximum annual tonnage of waste to be accepted at the site will not exceed 50,000 tonnes per annum. All processed RDF/SRF will be baled, wrapped in plastic and stored either inside or outside of the main building.

The process consists of shredding of wastes suitable to produce RDF/SRF with small amounts of recyclables being produced as a by-product of the process. Waste received on site shall be stored within the building prior to processing. The building will be fitted with extraction hoods positioned above the shredder and waste storage bays. The extracted air will then be passed through the activated carbon filter before emission to air.

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

- Key issues
- Annex 1 the decision checklist
- Annex 2 the consultation and web publicising responses

The Process

The treatment process and all associated processes, with the exception of storage of the finished SRF/RDF product and recyclable materials, will take place within the site's building. The building will contain a reception area which will accept waste for the production line. Upon unloading, the waste will be inspected for compliance with the waste acceptance procedures. It will then be either deposited onto the floor conveyor system for treatment or deposited within separate dedicated internal storage bays to await treatment.

Waste to be treated will be conveyed to a single line shredder which will reduce waste to a uniform particle size. The waste will then pass through an automatic baler unit which will compact the shredded waste into one cubic metre bales using plastic shrink wrap. Once processed, the RDF/SRF bales will be moved to the finished product storage area using a fork lift.

Key issues of the decision

Environmental Impacts

The main potential environmental impacts from this facility are expected to be amenity issues i.e. noise, odour and dust due to the nature of the wastes to be accepted at the facility. These have been discussed in greater detail below.

Odour – The operator has undertaken an H1 risk assessment to determine the likely impacts on nearby residents from odour. The operator has determined that the main sources of odour are likely to be from the following:

- Main Reception Area – unloading of unprocessed wastes;
- Storage Area – storage of processed and unprocessed wastes; and
- Treatment Area – emissions from the shredding and baling processes.

The operator has put the following management techniques in place to manage these risks:

- Main Reception area/delivery of wastes

The operator will only accept wastes which are pre-booked for processing at the site and which comply with the waste acceptance criteria. The waste, when received at the facility, will be unloaded within the reception area which will be within the site's building. The operator will ensure that the doors will be kept closed during the unloading and the transfer of untreated waste. Any wastes which are considered to be highly odorous will either be transferred directly to the conveyor for treatment, or will be rejected from the site.

- Storage area

The operator has proposed to store all incoming wastes within dedicated bays to ensure that wastes are not mixed. The building will be fitted with a roller door which will be kept close at all times with the exception of when waste is brought into the building. The building will be fitted with extraction hoods which will be positioned above the shredder and waste storage bays. The extracted air will be passed through an activated carbon filter to remove odorous components before emission to air.

The operator has proposed to take healthcare wastes which they have recognised will have a high potential to cause odour if not handled and stored properly. The operator has proposed to store these wastes within a designated bay prior to treatment. Small quantities of offensive healthcare wastes will be stored, within its primary packaging and within fully enclosed skip containers.

- Treatment Area

The operator has determined that the most likely source of odour from the facility is treatment of the waste via the shredder. The shredder unit will be positioned under a hood which will draw the air to an activated carbon

filtration system where the air will be treated by being drawn from the building and passed through activated carbon before being discharged to atmosphere through a single emission point located on the west side of the building.

As the site is located in close vicinity to sensitive receptors we have inserted a pre-operational condition in the permit that requires the operator to submit a revised Odour Management Plan (OMP) with regards to Environment Agency's H4 guidance and Environment Agency comments obtained during permit determination. The OMP will need to be approved by us before the start of operations. This is to ensure that the site is operated in line with best practice and there are no impacts on sensitive receptors.

Once approved the operator is required to operate at all times in accordance with the OMP to prevent pollution arising from odours and implement mitigation measures in line with the plan.

In addition in the event that odour emissions are causing pollution, the permit conditions require the operator to comply with the techniques outlined in the application. The odour conditions in the permit require that the operation is free of odour and requires the operator to appropriately manage odour emissions from the site. Daily olfactory tests at the site boundary will also ensure that emissions of odour are not causing annoyance.

Noise – The applicant has undertaken a noise risk assessment as part of the application.

The activities to be undertaken are similar to those already being undertaken at the site in terms of loading and unloading of waste and the shredding activities. The operator has not received any complaints regarding noise from the activities already being undertaken. All activities that could have the potential to cause noise will be undertaken inside of the building with the doors closed. Given that all activities will take place within a closed building, we are satisfied that noise from the site will not cause a nuisance at nearby sensitive receptors.

To support this, the operator has taken noise measurements at various points within the site's boundary to determine the likely noise generated from activities. They have determined that, based on these measurements, the facility will not impact on nearby receptors. The operator has submitted a Noise Management Plan that describes the measures and management techniques that will be used to mitigate the noise emission from the site. This includes proposals to carry out noise monitoring 3 months after the start of operations. We have therefore inserted an improvement condition that requires the operator to carry out a noise assessment according to the BS 4142. Should this assessment show that there is a negative impact on sensitive receptors from noise, the operator will be required to review their current management techniques for the purpose of determining what additional abatement or management is required to ensure noise from the facility is acceptable.

In addition, in the event that noise emissions are causing pollution, the permit conditions require the operator to comply with the measures proposed in the Noise Management Plan. The noise conditions in the permit require that the operation is free of noise and requires the operator to appropriately manage noise emissions from the site.

Dust – The operator has undertaken an H1 risk assessment to determine the likely impacts on nearby residents from dust.

The operator has put in place pre-acceptance and acceptance procedures to ensure dusty wastes are not accepted on site. Wastes comprising solely of small particles are not permitted. All unprocessed material will be stored inside the building and the operator proposes to undertake twice daily site inspections to ensure that any potential problems are identified and addressed early. All finished wastes will be wrapped in plastic before being stored outside of the building. We are therefore satisfied there is an insignificant risk of dust impacting on nearby receptors.

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
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements.	✓
Responses to consultation and web publicising	The web publicising and consultation responses (Annex 2) were taken into account in the decision. The decision was taken in accordance with our guidance.	✓
Operator		
Control of the facility	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 EPR RGN 1 Understanding the meaning of operator.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
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 A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Site condition report	The operator has provided a description of the condition of the site. 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).	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
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>The facility is within relevant distance of 2 local nature reserves and a number of local wildlife sites, namely:</p> <p>Local Nature Reserves</p> <ul style="list-style-type: none"> • Acornfield Plantation • Croxteth <p>Local Wildlife Sites</p> <p>Knowsley Park</p> <ul style="list-style-type: none"> • Meakin’s Pits, Huyton • Croxteth Country Park • Acornfield Plantation, Kirkby • The Roughts • Kraft Operational Land, Kirkby • Willowbed Plantation, Kirkby • Howard’s Pits, Huyton • Croxteth Brook • Knowsley Brook • Akers Pits, Knowsley Village <p>We do not consider that the activities will adversely impact on the above sites for the following reasons:</p> <ul style="list-style-type: none"> • All treatment and storage of unprocessed wastes will be undertaken within an enclosed building; • All processed wastes to be stored outside of the building will be wrapped in plastic to ensure that leachate and dust is not generated; • We are satisfied that noise from the activities will not cause an adverse impact due to the measures the operator has in place to control noise, i.e. all activities will be undertaken within a enclosed building with the roller doors shut; and • We are satisfied that odour from the activities will not cause an adverse impact as the operator has a number of operating techniques in place to control odour, i.e. priority for treatment of odorous wastes, special handling techniques for odorous wastes and extraction of air through hoods above the 	✓

Aspect considered	Justification / Detail	Criteria met								
		Yes								
	<p>shredder and waste bays for treatment of air via a activated carbon filter.</p> <p>A full assessment of the application and its potential to affect the local wildlife sites has been carried out as part of the permitting process. We consider that the application will not affect the local wild life sites.</p> <p>We have not formally consulted on the application. The decision was taken in accordance with our guidance.</p>									
Environmental Risk Assessment and operating techniques										
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.'</p>	✓								
Operating techniques	<p>We have reviewed the techniques used by the operator and compared these with the relevant guidance notes.</p>	✓								
The permit conditions										
Waste types	<p>We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.</p> <p>The waste types in the permit are considered to be acceptable for the production of RDF/SRF. The operator had originally proposed to accept the following codes for the production, but these were removed by the applicant at the duly making stage of the application as they were not suitable wastes to produce RDF/SRF:</p> <table border="1"> <tbody> <tr> <td>08 01 12</td> <td>waste paint and varnish other than those mentioned in 08 01 11</td> </tr> <tr> <td>08 02 01</td> <td>waste coating powders</td> </tr> <tr> <td>08 04 10</td> <td>waste adhesives and sealants other than those mentioned in 08 04 09</td> </tr> <tr> <td>20 01 28</td> <td>paint, inks, adhesives and resins other than those mentioned in 20 01 27</td> </tr> </tbody> </table> <p>Additionally we have refused the following waste types as they are also not suitable for the production of RDF/SRF due to harmful properties if burnt, or lack of suitability for</p>	08 01 12	waste paint and varnish other than those mentioned in 08 01 11	08 02 01	waste coating powders	08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09	20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27	✓
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08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09									
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27									

Aspect considered	Justification / Detail	Criteria met						
		Yes						
	burning: <table border="1"> <tr> <td>03 03 09</td> <td>lime mud waste</td> </tr> <tr> <td>16 01 03</td> <td>end-of-life tyres</td> </tr> <tr> <td>19 03 05</td> <td>stabilised waste other than those mentioned in 19 03 04</td> </tr> </table>	03 03 09	lime mud waste	16 01 03	end-of-life tyres	19 03 05	stabilised waste other than those mentioned in 19 03 04	
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Pre-operational conditions	<p>Based on the information in the application, we consider that we need to impose pre-operational conditions.</p> <p>We have inserted pre-operational condition POC1 which requires the operator to install an impermeable surface and sealed drainage system within the quarantine area as required by the Fire Prevention Plan. No waste shall be accepted until this is completed. This is to ensure that in case of fire, potential run off and firewater is contained within the quarantine area.</p> <p>We have inserted pre-operational condition POC2 which requires the operator to submit an Odour Management Plan produced in line with the Environment Agency's H4 Odour Management Guidance and Environment Agency comments on the OMP received with the permit application. No activities shall be carried out on site until the OMP is approved by the Environment Agency. This is to ensure the there are appropriate management techniques to manage the odour from the activities in place prior the operations commencing.</p>	✓						
Improvement conditions	<p>Based on the information on the application, we consider that we need to impose improvement conditions.</p> <p>We have included improvement condition IP1 to ensure that the operator carries out noise monitoring and reviews the Noise Management Plan once the facility is operational in order to ensure that the facility will not impact on receptors.</p> <p>Improvement condition 1 requires the operator to undertake noise monitoring to confirm the likely levels of noise to be produced by the site. While the operator provided a noise impact assessment with the application, the noise assessment was centred on the noise emitted from individual activities within the site boundary, but did not determine if these would have an adverse impact on nearby receptors. The noise impact assessment</p>	✓						

Aspect considered	Justification / Detail	Criteria met
		Yes
	forwarded by the operator concludes that noise will not be produced at levels which will cause nuisance. However this assumption is based on current operational practices, which show that noise levels are within the guidelines for the health and safety for workers. As a consequence of this, we have required the operator to undertake an additional assessment to validate the noise predictions within the application to confirm that noise will not adversely impact offsite receptors. Should the assessment show that there is a negative impact on sensitive receptors from noise, the operator will be required to review current management techniques for the purpose of determining what additional abatement or management is required to ensure noise from the facility is acceptable.	
Incorporating the application	We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process. These descriptions are specified in the Operating Techniques table in the permit.	✓
Emission limits	We have decided that emission limits should be not set in the permit.	✓
Operator Competence		
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 RGN 5 on Operator Competence.	✓
Technical competence	Technical competency is required for activities permitted. The operator has submitted evidence to show that they are registered on the appropriate scheme in order to gain technical competence within the next 12 months.	✓
Relevant convictions	The National Enforcement Database has been checked to ensure that all relevant convictions have been declared.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	No relevant convictions were found. The operator satisfies the criteria in RGN 5 on Operator Competence.	
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 RGN 5 on Operator Competence.	✓

Annex 2: External 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
Planning and Enforcement of Knowsley Metropolitan Borough Council
Brief summary of issues raised
No issues raised. The proposed activity will not constitute the change of use. Site is located within established industrial area and is not within close proximity to any residential development.
Summary of actions taken or show how this has been covered
No actions necessary.