Permitting decisions

Bespoke permit

We have decided to grant the permit for Greasbrough Depot operated by Stobart Biomass Products Limited.

The permit number is EPR/BP3739YW.

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. The introductory note summarises what the permit covers.

Key issues of the decision

Fire prevention

We have a regulatory duty to protect the environment and people. A fire that occurs on a site storing combustible waste materials can have a severe impact on the environment and on local communities. Waste fires can produce smoke that contains a variety of harmful emissions including asphyxiants and irritants. The longer the exposure to smoke the more likely there may be significant pollution or harm to human health. Therefore our approach is first to minimise the risk of a fire occurring and then to recognise that if a fire does occur it should be extinguished as quickly as possible whilst at the same time preventing it from spreading.

The measures set out in the Fire prevention plans: environmental permits guidance (November 2016) (the guidance) have therefore been designed to meet the following three objectives:

- minimise the likelihood of a fire happening;
- aim for a fire to be extinguished within 4 hours; and
- minimise the spread of fire within the site and to neighbouring sites.

We consider that if an operator submits a fire prevention plan (FPP) that includes the measures set out in the guidance we are likely to approve that FPP. If an operator is unable to meet the measures in the guidance but can propose alternative measures that nevertheless meet the aims of the guidance we can still approve that FPP. It is for the operator to demonstrate these measures, so that we can be satisfied that the alternative measures meet the objectives of the guidance.

The operator has identified the potential risk of fire from the installation due to the treatment and storage of combustible non-hazardous wastes on site. In this case, waste wood. The FPP sets out the measures put in place to prevent a fire and the actions that will be taken in the event of a fire occurring.

The FPP did not include all of the measures set out in our guidance. However the FPP did include alternative measures and so the operator was required to demonstrate that the alternative measures could meet the objectives in accordance with our guidance.

We have assessed the FPP and set out below where measures in line with the guidance are in place and where we have agreed alternative measures.

Appropriate measures are in place for non-waste materials, managing common causes of fire, preventing self-combustion, preventing fire spread, fire water containment and contingency planning during and after an incident. We consider these to be in line with the guidance.

Alternative measures that we have assessed and are satisfied that they meet the objectives of the guidance are as follows:

- <u>Manage waste piles</u>

  Pile sizes for processed and unprocessed wood exceed the maximum pile sizes set out in paragraph 9 of our guidance. As an alternative measure the operator has proposed and has demonstrated to our satisfaction how they will use shovel loaders to create fire breaks in the long piles of wood waste to quickly reduce the size of the piles in the event of a fire. There will be the attendance of trained staff 24 hours a day who are competent in operating the shovel loaders and the mobile fire tender. We have considered this proposal in combination with other extra measures as detailed below and conclude that quickly reducing the size of the piles will limit the scale of a fire if one breaks out. This meets the objectives of the guidance.

- <u>Quarantine area</u>

  The quarantine area is smaller than 50% of the largest wood pile as set out in the guidance, paragraph 12. The operator has proposed that loading shovels will be used to provide immediate fire breaks within any burning pile to quarantine material in-situ. A 500m^3 section will be isolated with 6m separation distance around it. The fire tenders will be able to smother any fire swiftly. Excavated

material would be placed within the fixed quarantine location or in a position which would not hinder access or contravene the site 6m separation distances. We consider quickly reducing the size of the piles alongside the temperature monitoring and stock rotation proposed by the operator will limit the scale of a fire if one breaks out and allow the isolated burning wastes to be extinguished. This meets the objectives of the guidance.

- Water supplies

  There are insufficient water supplies on site to allow for firefighting to manage a worst case scenario. A worst case scenario would be the largest pile of waste catching fire and having to fire fight the fire for 3 hours. For this site we are considering the worst case scenario to be a pile that has been reduced in size to 500m^3 using the methods explained above. As an alternative to solely using water from the on-site fire hydrants, the operator proposes to use Alcohol Resistant Aqueous Film Forming Foam (AR AFFF) which will reduce the water supplies needed by a factor of 5. We have considered the use of this foam and we recognise that the operators' proposal meets the objective of our guidance in that should there be a fire in the largest pile of waste, there would be enough water available for firefighting to take place to manage a worst case scenario.

- Detecting fires and monitoring

  Following assessment of the FPP we had the following outstanding concerns. In order for the above firefighting techniques to be effective, a representative monitoring approach was required. This would allow the operator to trigger their above firefighting strategies. As a series of external piles, the operator proposed a manual system to meet the objectives of the guidance. The proposed detection method is the manual daily monitoring of waste piles with a temperature probe at a frequency of once per day at 5m intervals along the length of each pile. In addition to this, appropriate trigger temperatures are in place to provide adequate lead time for action to be taken. The proposed suppression method relies on the above manual fire detection system and the 24 hours a day, 7 days a week ability to quickly deploy a fire tender to deliver a mixture of AR AFFF foam and water to any smouldering or burning pile. This would be used in combination with the ability to install fire breaks within the long piles of wood to reduce the pile size which we have accepted as an alternative measure.

  The operator's trigger temperature of 49°C is based on upon assigning a temperature 10°C lower than the expected critical temperature for fines piles. This critical temperature is based on the BRE review document. A more appropriate critical temperature described in the BRE review document is for a wood chip pile (10 – 75mm particle sizes) pile of 10m (h) x 50m (w) x 50m (l) - 94°C. The pile can be considered to represent a worst case at Rotherham as the particle sizes of the waste are a mixture of 10mm - 800mm and contain fines rather than storing wood fines separately.

Conclusion

We have considered these measures in combination with other alternative measures as detailed above. We conclude that the fire detection for the processed waste and the enhanced out of hours cover for the fire tender suppression system will enable the detection of a fire in its early stages to reduce its impact, will prevent a fire spreading and allow any fire to be fought effectively. We consider that these systems aim for a fire to be extinguished within 4 hours and subsequently will minimise the spread of fire within the site. Therefore we are satisfied that the proposed alternative measures meet the objectives of the guidance.

We are satisfied that the FPP meets the objectives of the guidance.

Dust Management

The operator has identified the potential risk of dust emissions from the installation due to the nature of the treatment activities on site. To manage the risk of impact on nearby receptors, the operator has proposed the following measures through their Dust and & Particulate Management Plan (version 7a):

- Waste wood will be delivered to the site using bulk walking floor transporters avoiding high level tipping.

- The site is fully concreted throughout making the site easier to clean. There will be no unmade ground (rocky or permeable surfaces). This should reduce the amount of dust and particulates generated at ground level.
- Daily site sweeping (in dry conditions) using sweepers equipped with water sprays.
- On site vehicle speeds on the haul roads are restricted to 5 mph.
- Dust suppression will comprise of; a mobile mast spraying system, a mobile bowser with movable splash plate and integral dust suppression spray bars on the shredder hopper (for incoming wood) and sprays in the shredder chamber as the shredded material exits the plant.
- Waste fines will not be segregated through an additional shredding stage or through mechanical sorting. Any fines contained within the incoming waste should stay within the processed piles. There will be no storage of separated wood fines.
- The operator has committed to supplying any additional dust suppression within 24 hours should the existing equipment on site not be sufficient in controlling dust. In addition, operations will cease until the appropriate level of dust suppression is in place on site.
- The overarching dust management control on site is the ceasing of operations should the above control measures not be effective in controlling dust from escaping the boundary.
- Visual monitoring of dust will be carried out daily, taking account of the dustiest processes. The trigger for implementing control measures will be the observation of visible dust plumes with the potential for migration beyond the site boundary.

The operator has defined each possible source of dust and has identified specific trigger levels which cause the operator to perform one or several of the control measures specified above.

We have assessed the operator's proposals for managing the risk of dust emissions in line with the requirements of our guidance and are satisfied that the measures represent Best Available Techniques.

Suspended particulate matter emissions (PM_{10} and total suspended particulates (TSP)) monitoring

Due to the sensitive nature of the site we have set out requirements for the Operator to monitor concentrations of particulate matter suspended in the air (PM_{10} and TSP emissions) in order to ensure that unacceptable emissions are not emitted beyond the site boundary. The Environment Agency and the Operator do not agree on the level of potential particulate emissions which can be emitted from this process. Therefore, we have required that the operator undertake continuous monitoring of PM_{10} and TSP to ascertain representative results of emissions. As we cannot fundamentally prove at this stage the extent of dust emissions, continuous dust monitoring is an important approach in accurately recording intermittent dust sources. This is in line with the requirements of the Environment Agency's guidance, *M17. Monitoring Ambient Air around Waste Facilities* and *M8. Monitoring Ambient Air*.

The operator currently proposes to undertake dust monitoring through the use of frisbee deposition gauges. We do not consider that the operator's current monitoring proposal to be representative for the following reasons:

- Deposition gauges only provide a 'snapshot' of the dust emissions.
- They do not provide representative readings and do not reflect the dustiest activities on site.
- They provide no detail as to the source of the particulates captured which may be required in an industrial area.
- The benchmark specified in TGN M17 of 200 mg m^{-2} day^{-1} does not properly reflect the nuisance effects from low density material, such as woodchip.
- The benchmark specified is a nuisance benchmark and does not consider health effects of particulate matter.
- Data collected must be extrapolated after analysis. Therefore, cannot be used as an active monitoring system in real time as a trigger for further actions.

- The samples take some time to be collected, examined, data analysed and reported. Therefore cannot be used as an active monitoring system in real time as a trigger for further actions.
- Frisbee gauges are not MCERTS approved and there is no mention of using UKAS accredited laboratories to collect and analyse the samples in the current dust management plan.

The improvement condition (IP3) requires the operator to produce a monitoring strategy which shall take place over a temporary period of 12 months. This period is necessary in demonstrating that abatement techniques have been effective at minimising suspended concentrations of particulate matter escaping the site boundary. In particular:

- 12 months of real time monitoring will enable a range of climatic conditions and operator scenarios to be experienced during the monitoring period.
- It will enable the collection of a statistically representative set of data.
- It will allow the operator time to review and improve abatement systems (if emissions are found) and to demonstrate whether the activities will have/not have an impact on adjacent and nearby receptors.
- The Environment Agency will be able to make a robust, evidence based decision on the potential impact of dust and particulate emissions.

In order to produce a strategy in line with the above guidance documents (*M8* and *M17*), the operator must demonstrate how the monitoring techniques, personnel and equipment meet the Environment Agency's MECERTS standard, *Performance Standards for Indicative Ambient Particulate Monitors*. The strategy will also need to determine action levels for PM_{10} and TSP concentrations so if the level is exceeded the operator can review activities to prevent the action level from being breached in future.

Noise assessment

The operator has identified the potential risk of noise emissions from the installation due to the physical nature of the treatment activities on site and carried out a noise impact assessment following BS 4142:2014 methodology. We have audited the operator's assessment and from our sensitivity modelling, we expect that, subject to the operational and mitigation measures outlined in the operator's report being achieved, the impact should be acceptable. To manage the risk of impact on nearby receptors, the operator has proposed the following measures:

- The shredding plant will typically be operated within the centre of the site.
- 6m push walls will be erected around the site perimeter to contribute to noise attenuation.
- Tipping of waste will be from low level bulk walking floor transporters. There will be no high level tipping.
- The shredder conveyor is low level and below 2m above ground level.
- Given the industrial and commercial context, noise throughout the day should not be distinguishable for most of the day but may be more noticeable in the early morning and early evening. Therefore, the shredding equipment will not be used before 07:00 and where possible after 18:00.

On this basis, we have assessed the operator's proposals for managing the risk of noise emissions in line with the requirements of our guidance and are satisfied in principal that the measures represent Best Available Techniques. However, during the determination of the permit, the operator has proposed a different item of shredding plant to that modelled. The new plant replaces the previously assessed high speed shredder with a single pass slow speed shredder. This should not raise noise levels to above that which was previously assessed.

In order to determine that there will be no increase in noise levels, we have imposed an improvement programme (IP1) to reassess the new sources of noise from the site and to provide the Environment Agency with a report showing the findings of the assessment. Should the revised noise assessment show an

adverse impact then the operator shall include in their revised noise assessment proposals for further mitigation and evidence that any improvements will reduce noise impacts to acceptable levels (IP2).

Emissions to water

All processing and storage areas within the boundary of the site are constructed of impermeable concrete hardstanding with a sealed drainage system. The drainage system comprises drainage channels which will direct run-off towards an attenuation lagoon then to foul sewer. The lagoon is physically connected to the Yorkshire Water foul sewer via a mechanical pump and pipeline. There is a penstock valve between the lagoon and this connection, however this is to remain permanently closed. In the event of a fire the connection to sewer will be severed via the cessation of manual pumping from the lagoon and any unused firewater will be pumped away using vacuum tanker and disposed at a suitable facility. The operator has not yet gained permission to discharge site surface waters to the Yorkshire Water foul sewer. The operator will need this discharge consent before any discharges are made to foul sewer.

We have assessed the operator's proposals for managing the risk from surface water in line with the requirements of our guidance and are satisfied in principal that the measures 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.
Consultation	
Consultation	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement. The application was publicised on the GOV.UK website. We consulted the following organisations: • Public Health England and The Director of Public Health • The National Grid • Yorkshire Water • The Health & Safety Executive • The Food Standards Agency • Network Rail • Rotherham Metropolitan Borough Council The comments and our responses are summarised in the consultation section.
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 our guidance on legal operator for environmental permits.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN 2 '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 to be 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

Aspect considered	Decision
	guidance on site condition reports and baseline reporting under the Industrial Emissions Directive. We have advised the operator that they will need to collect baseline data reference data. The operator's site condition report identifies levels of historical ground contamination.
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. We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.
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. The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant with the exception of dust and particulate emissions. Measures to control dust and particulate emissions and monitoring requirements are discussed within the key issues section.
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.
Noise management	We have reviewed the noise management plan and noise assessment in accordance with our guidance on noise assessment and control. We consider that the activities carried out at the site have the potential to cause noise and/or vibration that might cause pollution outside the site and consider it appropriate to impose specific measures. See key issues for more information.
Fire prevention plan	The plan sets out alternative measures that we consider meet the objectives of the Fire Prevention Plan guidance. See key issues for more information.

Aspect considered	Decision
Permit conditions	
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 • 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. See key issues for more information.
Emission limits	We have decided that emission limits are not required in the permit.
Monitoring	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. These monitoring requirements have been imposed in order to ensure the operator prevents unacceptable emissions of PM_{10}. It is comprised of a temporary 12 months monitoring trial. See key issues for more information. The improvement condition requiring this monitoring regime will require that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.
Reporting	We have specified reporting in the permit. The reporting period will be agreed with the Environment Agency upon completion of IP3.
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. The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.
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.
Relevant convictions	The Case Management System and National Enforcement Database have been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

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.
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.

Consultation

The following summarises the responses to 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

Response received from
Rotherham Metropolitan Borough Council
Brief summary of issues raised
No specific issues were raised as long as the operator works to conditions in the permit relating to amenity issues (noise, dust and odour).
Summary of actions taken or show how this has been covered
The permit includes standard amenity conditions for noise, fugitive emissions, odour and fire prevention. These conditions require the operator to not cause pollution outside of the permit boundary. The operating techniques include an approved dust and particulate emissions management plan and fire prevention plan.

Response received from
Public Health England (PHE)
Brief summary of issues raised
PHE raised the immediate concerns of particulate matter (dust) emissions off site and the risk posed by fire. However, they raised no concerns with the operator's fire prevention plan. Specific concerns raised included: • Discrepancies in the amount of total stored waste on site at any one time. • Status of the operator's potential discharge of fire water to foul sewer. • The situation of the overhead power lines and whether this would restrict fire-fighting on-site.
Summary of actions taken or show how this has been covered
As stated above the permit includes standard amenity conditions for noise, fugitive emissions, odour and fire prevention. These conditions require the operator to not cause pollution outside of the permit boundary. The operating techniques include an approved dust and particulate emissions management plan and fire prevention plan. With respect to the specific concerns raised: • The operator confirmed the total amount of waste materials stored on site and the relevant documents were revised accordingly. • No firewater will be discharged to foul sewer unless an agreement with the sewage undertaker can be reached. The operator revised their application to include a storage lagoon specifically for containing firewater. This will be kept nominally empty. The permission for a discharge to foul sewer is outstanding and the operator will require the relevant consent to discharge any site surface waters to foul sewer. • We consulted the National Grid and no concerns were raised relating to the transecting overhead power lines. Furthermore, the operator adequately demonstrated that the overhead power lines should not hinder firefighting. In addition, the operator has committed to notifying the National Grid should any fire occur.

Response received from
National Grid
Brief summary of issues raised
The National Grid responded to the consultation request with details more relevant to the planning permission process. They highlighted the presence of gas pipes at the location of the site. No comments were made in relation to the overhead power lines.
Summary of actions taken or show how this has been covered
This response was not relevant to the permit determination. Planning permission has been sought by the operator.

Yorkshire Water (sewage undertaker), the Health and Safety Executive and the Food Standards Agency were also consulted but no response was received.

Representations from individual members of the public.

Brief summary of issues raised
No responses were submitted.
Summary of actions taken or show how this has been covered
No responses were submitted.