

Permitting decisions

Bespoke permit

We have decided to grant the permit for Foundry Lane Biomass Processing Plant operated by Stobart Biomass Products Limited.

The permit number is EPR/BP3632DM.

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

Description of the main features of the Installation

The installation will allow the pre-treatment of waste prior to disposal at an incinerator. The permit specifically allows the shredding of non-hazardous wood waste prior to dispatch off-site to the Mersey Bioenergy Facility.

This will take place under the following scheduled activity:

- S5.4 Part A(1)(a)(iii) – Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving pre-treatment for incineration or co-incineration.

The installation will also undertake directly associated activities based on the non-hazardous waste treatment activities. This will include:

- storage of waste before and after processing;
- surface water management; and
- storage of raw materials.

The permit allows the treatment and storage of waste wood on an impermeable surface with sealed drainage. Unprocessed waste wood will be stored externally in piles. Treatment activities including screening and shredding, and storage of processed waste wood will take place within the site's main building. All processed wood is destined for disposal at the Mersey Bioenergy Facility. The annual throughput of the biomass processing facility will be less than 150,000 tonnes. The total storage capacity at the site is 14,500 tonnes at any one time.

The site will be operational 24 hours a day with screening and shredding taking place between 06:00 and 00:00. The principal releases from the site are dust and noise. There are two point source emissions, one being rainwater from the building roof only to Ditton Brook and surface water runoff to sewer via a collection lagoon.

The site is located off Foundry Lane, Widnes adjacent to Ditton Brook. The site is within 50m of human receptors with residential properties approximately 200m away, and located about 500m north of the Mersey Estuary SSSI which is also a designated European site.

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:

- Manage waste piles

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. 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.

- Quarantine area

The quarantine area is significantly 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 500m³ section will be isolated with 6m separation distance around it. The fire tenders will be able to smother any fire swiftly. 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 500m³ using the methods explained above. As an alternative to solely using water 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 and suppressing fires

Following assessment of the FPP we had the following outstanding concerns. The site has a large building in which processed wood and fines are stored in piles. These piles are considered to have a much lower critical ignition temperature because smaller particle sizes increase the degree of compaction of the pile, reduce the level of airflow and the increased surface area increases the degree of self-heating through biological degradation. As such they are considered to be higher risk.

Recognising this greater risk, in paragraph 13 of our guidance we require that there are in place procedures to detect a fire that are proportionate to the nature and scale of the activity on site. In paragraph 14 of the guidance we require a fire suppression system that is proportionate to the nature and scale of the activity on site and the risks posed is installed where waste is stored in a building. The system needs to enable a fire to

be extinguished in 4 hours. If the measures set out in the guidance cannot be met then the operator can propose alternative measures that meet the objectives of the guidance.

The operator did not propose to install an automated system. As an alternative 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 relied 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.

While this is acceptable for piles stored externally we consider that the storage of processed piles and fines within a building is high risk. Our guidance proposes that any installed suppression system be fully automated. Any automated systems must have a separate water supply and confirmation that it will be initiated if trigger temperatures are exceeded. A manual detection system would not be able to effectively inform an automated suppression system to activate. This could delay the detection of fire in its early stages to reduce its impact.

In the event of a fire we have serious concern that the fire service may not allow anybody to enter the building to fight a fire and the event would be managed as a controlled burn. Therefore, this would render the operator's firefighting strategy redundant. A fire would unlikely be extinguished within 4 hours meaning local residents would have to take shelter for an unacceptable amount of time and local transport links could be affected.

We have considered the nature and scale of from the activities and the associated risks and compared this with our guidance which details appropriate automated systems and that a systems '*design, installation and maintenance must be covered by an appropriate UKAS-accredited third party certification scheme.*' No automated system is present and no endorsement has been provided by a third party qualified in the assessment of fire risk. Therefore we do not consider the proposed detection and suppression methods meet the objectives of the guidance. To accept this proposal as an alternative measure we require the operator to appoint a third party qualified in the assessment of fire risk to review their system and confirm that the proposed measure is equivalent to the requirements set out in our guidance. We consider that equivalent systems should be endorsed as suitable by a third party qualified in the assessment of fire risk (Certification by a body that is UKAS-accredited or Professional Body Registration Schemes) as this is a requirement for any installed automated system.

The operator believed that the manual systems being proposed offered an equivalent level of protection as automated systems, however failed to provide third party review and endorsement of this.

The operator instructed an independent third party qualified in the assessment of fire risk to review the FPP and in particular their proposals for fire detection and suppression within the building. A report was provided which assessed the risk from the fire detection and fire suppression proposals, it then offered conclusions and recommendations.

The report conclusions are summarised as follows:

- The risk of fire in piles of processed wood is negligible. This is supported by temperature probing data and a fast turnaround time.
- The manual detection methods are adequate although further fire patrols and temperature probing should be provided.
- The risk of fire in the fines piles is moderate. Any smouldering piles may not be discovered for some hours with daily manual temperature probing.
- There is currently inadequate fire detection provided to enable a fire to be extinguished within 4 hours.

- The fire tender provisions were reviewed and it was concluded that during working hours this would be an effective system. However, out of hours a significant delay may occur.

The recommendations can be summarised as follows:

- 1) The fines pile should be equipped with a dedicated CCTV thermal imaging fire detection camera, connected to a fire alert system. As an interim measure and until such a camera is installed, the site should probe the fines pile every 2 hours on a 24/7 basis;
- 2) At least two additional trained staff should undertake temperature probing and fire patrols out of hours. These staff should be present on every occasion throughout the year that the site is not operating. These staff should be trained in the operation of the fire tender and have radio communications with the security guard; and
- 3) A contingency plan should be drawn up such that a replacement fire tender is available within 36 hours, in the event of the on-site tender developing a fault or requiring off site maintenance.

The operator has accepted these recommendations and has incorporated them in to the FPP.

Conclusion

We have considered these measures in combination with other alternative measures as detailed above. We conclude that the automation of fire detection for the fines piles 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:

- all treatment activities and storage of processed material takes place within a building;
- the site infrastructure including storage and treatment areas and haul roads have concrete surfacing;
- all areas of the site are subject to a regular cleaning regime;
- localised water spray dust suppression is fitted on key items of plant including the shredder and screeners;
- vehicle speeds will be reduced to 5mph on site;
- all plant will be regularly maintained, inspected and kept clean to avoid a build-up of material; and
- visual monitoring of dust will be carried out to ensure that the site is not allowing any dust emissions to leave the site boundary.

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

Noise management

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 consider that sound levels from the operation may be slightly higher than the predictions made in the assessment. We therefore carried out an additional sensitivity analysis based on the proposed installation of an additional noise barrier and fencing screen. We concluded that with the addition of these

extra measures that the operators' conclusions within the assessment can be relied upon for the determination of this application. Noise levels from the site are unlikely to cause pollution if the improvements are made to the existing noise bund.

To manage the risk of impact on nearby receptors the operator has proposed the following measures:

- the extension of the south west perimeter 4 metre high bund;
- the erection of a 2.4m high close boarded fence on top of the existing 4m high bund;
- shredding and screening will take place within the building; and
- all vehicles and equipment are subject to regular maintenance and inspection.

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. See Improvement Programme section below.

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 foul sewer. The lagoon is physically connected to the United Utilities foul sewer via a mechanical pump and pipeline. There is a penstock valve between the lagoon and Ditton Brook, 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.

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. See Improvement Programme section below.

Improvement programme

We have included an improvement programme in the permit to ensure that the measures detailed above are installed and are effective. These can be found in table S1.3 of the permit.

- IP1 has been included to ensure that the lagoon will be constructed and maintained to an appropriate standard which will prevent any potential contaminants migrating into the contents of the lagoon from the contaminated land below.
- IP2 has been included to ensure the south west perimeter noise bund is extended and the noise barrier fencing on top of the noise bund is erected.
- IP3 has been included to validate the evidence that the addition of the extension of the noise bund and the erection of the fencing barrier provides enough mitigation to prevent noise emissions beyond the boundary of the site.
- IP4 and IP5 have been included to require a plan for the installation of a thermal imaging camera and fire alarm system and confirmation of the installation are provided to ensure compliance with the approved FPP.

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	<p>The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement.</p> <p>The application was publicised on the GOV.UK website.</p> <p>We consulted the following organisations:</p> <ul style="list-style-type: none"> • Fire and Rescue Service • Director of Public Health • Public Health England • Health and Safety Executive • Environmental Health <p>The comments and our responses are summarised in the consultation section.</p>
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 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.
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
	<p>We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified.</p> <p>We have consulted Natural England on our Habitats Regulations and SSSI assessments, and taken their comments into account in the permitting decision.</p>
Environmental risk assessment	
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>The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment, all emissions may be categorised as environmentally insignificant.</p>
Operating techniques	
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>
Fire prevention plan	<p>The plan sets out alternative measures that we consider to meet the objectives of the Fire Prevention Plan guidance. See key issues for further details.</p>
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>We are satisfied that the operator can accept these wastes for the following reasons:</p> <ul style="list-style-type: none"> • they are suitable for the proposed activities • the proposed infrastructure is appropriate • the environmental risk assessment is acceptable. <p>We made these decisions with respect to waste types in accordance with WM3: Waste Classification - Guidance on the classification and assessment of waste.</p>
Improvement programme	<p>Based on the information on the application, we consider that we need to impose an improvement programme.</p> <p>See key issues for further details.</p>
Emission limits	<p>We have decided that emission limits are not required in the permit.</p>
Reporting	<p>We have specified reporting in the permit.</p>

Aspect considered	Decision
	We made these decisions in accordance with Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste.
Operator competence	
Management system	<p>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.</p> <p>The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.</p>
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 have 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>
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	<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 consultation with other organisations, 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
Public Health England
Brief summary of issues raised
Primary risks are fugitive wood dust emissions and fire. No significant concerns regarding risk to health of the local population from this proposed activity, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice.
Summary of actions taken or show how this has been covered
We have assessed and accepted the operator's dust management procedures and the fire prevention plan as part of the determination of the permit application.