Permitting decisions

Variation

We have decided to grant the variation for Oak Farm Quarry North East Landfill operated by Himley Environmental Limited.

The variation number is EPR/DB3909MM/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

Introduction

This variation changes Oak Farm Quarry North East Landfill from an inert landfill to a non-hazardous landfill.

Oak Farm Quarry North East Landfill is situated to the west of the centre of Dudley at National Grid Reference SO 90021 90765. There is a former landfill directly to the west of the site known as Himley Wood Landfill site, scrap yards and former landfilling to the east and a sewage works, an old landfill to the north and an industrial estate to the south. There is open space to the west opening out into South Staffordshire countryside.

The primary activity authorised by this permit falls under Section 5.2 Part A(1)(a), the disposal of waste in a landfill. The permit allows the permanent disposal of non-hazardous waste into a fully engineered cell.

The primary non-hazardous waste streams will be sourced from transfer stations, including general biodegradable wastes, trommel fines, and contaminated soils. The permit will allow for the importation of 300,000 tonnes per annum of non-hazardous wastes and 150,000 tonnes of inert waste to allow for daily cover and to include waste for restoration above the engineered cap.

The landfill footprint covers 25,500m^2 (2.55 hectares), and has an infill volume of 340,000m^3.

The site is on a Secondary A Aquifer and not within a Source Protection Zone.

Installation Engineering

A groundwater management system is not required in this cell.

The site will comprise one cell. For the basal and side slope lining system the operator will re-work Etruria Marl from the underlying quarry to form the geological barrier which will be placed in accordance with the Construction Quality Assurance Plan in 270mm-300mm layers and compacted as per the Highways Specification. The Etruria Marl is at least 40 metres thick below the base of the site. The engineering will consist of a basal liner, constructed above the prepared formation level from suitable low permeability material placed and compacted in layers. The subgrade of the side slopes will be formed from the in-situ Etruria Formation rocks remaining when the excavation is completed. No benches are proposed as the overall slope height is eleven metres. The thickness of mineral lining will be a minimum of 1.5m thick and will be placed in accordance with the Construction Quality Assurance Plan (CQAP).

The side slope stability has been assessed as part of the Stability Risk Assessment for the permit application and is considered to be acceptable.

The leachate drainage system is required to:

i) allow control over leachate levels in the cell during operational and post operational phases; and,

ii) assist leachate flow to sump points to allow removal by pumping.

The leachate drainage system includes a herringbone leachate collection drain falling to the leachate pumping chamber located at the low spot in the cell and a 300mm stone drainage layer above and around the pipes. The pipes are based at 40 metre centres based on LANDSIM modelling. The drainage system will be placed in accordance with the CQAP.

The capping system will comprise a geosynthetic clay liner (GCL), thus maximising the amount of marl that can be extracted for brick making. Capping will be carried out in accordance with an approved CQAP and carried out under full time CQA supervision.

Soil will be stored in suitable soil mounds in accordance with the specification set out in MAFF Good Soil Guide. Sub soils and top soils or soil substitutes will be placed directly above the cap to provide a 1.0 metre thick soil profile above the cap where grass seeding and open space is designated and a 2.0 metre thick soil profile where tree planting is required.

Soil placement and restoration is a requirement set out in current Planning Permission P07/1198 under Condition 18 and is to be placed to the satisfaction of the Mineral Planning Authority, Dudley Metropolitan Borough Council, and this will be continued on through with the same principles for the extension areas.

The final restoration of the site is to grassland and tree planting and public open space and recreational activities.

Leachate Management and Monitoring Infrastructure

The site is designed as a fully engineered containment facility above the groundwater table with an unsaturated zone.

The Hydrogeological Risk Assessment for the landfill has demonstrated that the site is unlikely to generate significant leachate heads due to the proposed rate of infill, short duration, waste types and capping and the landfill will be of a similar input rate to the adjoining and now completed Oak Farm landfill. This is further supported by the water balance calculations.

Therefore the primary monitoring and control is to manage and monitor the leachate head at 1 metre.

Based on all the supporting data which shows that it is unlikely that leachate will be generated in significant quantities, there is, therefore, no requirement for leachate to be treated at the facility and removed off-site. However, provision has been made for the extraction of leachate to storage tanks for long term removal and treatment off-site if required.

There will be 3 sampling points: 2 monitoring points in the cell and the leachate pumping chamber.

Landfill Gas Management and Monitoring Infrastructure

The likelihood of gas generation based on the Landfill Gas Risk Assessment is considered high for the Oak Farm Quarry North East Landfill and internal gas monitoring points/gas wells will be constructed throughout with horizontal scavenger wells put into the waste to extract gas at the earliest opportunity.

There is therefore the requirement for gas extraction from Oak Farm Quarry North East Landfill and an area has been allocated for a temporary gas flare. It is expected that the site will share landfill gas infrastructure with the adjacent Himley Wood Landfill site (operated by Biffa Waste Services Limited) as per the Landfill Gas Management Plan. The Landfill Gas Management Plan for North East Landfill sets out that gas flaring will be required and that the infrastructure will connect to the flare used for the adjoining Oak Farm Landfill site and the gas from Oak Farm and Oak Farm North East will be then be piped to the gas engines on the Biffa Site.

Gas monitoring boreholes have been constructed around the outside of the landfill site and additional external gas monitoring boreholes will be installed as per the Landfill Gas Risk Assessment. Gas monitoring will be carried out on a monthly basis at each of the external gas monitoring points using an infra-red gas analyser during the operational phase.

External gas monitoring is from the five combined groundwater and gas boreholes, with an additional six external gas monitoring points along the northern boundary.

Monitoring is also required within the in-waste boreholes prior to gas being extracted and then from the gas extraction wells.

Surface Water Management System

Surface water is to be directed to a pond on the adjacent Oak Farm Quarry Landfill by way of French drains constructed above the liner and cap. There is no direct discharge of surface water to the nearby brook.

Monitoring point SW1 is located upstream of any potential influence or impact from the landfill site. No trigger levels have been set for SW1 as this is influenced by direct discharge from the Sewage Works.

Monitoring point SW2 is located downstream. It is not proposed to include trigger levels for SW2 as these were set for the adjoining Oak Farm landfill site with influence of discharge from storm tanks during storm periods for sewage into the brook.

It is proposed that a balancer flood risk pond will be constructed on completion of the restoration works.

Restoration Plan

The operator has identified that the works on site are subject to specific obligations under planning. The original mineral planning has been archived, the restoration planning for the site has been submitted and stipulates the required completion standards in Planning Conditions 4, 5, 6, 7, 9, 10, 11, 12 and 13, relating to Planning Consent P/14/1780. The original planning requirement to restore the mineral working is referenced in section 31 of the associated planning P07/1198.

It is therefore accepted that there is a specific obligation under planning to complete the works to the agreed planning.

The proposed waste streams are suitable for the intended use. Aggregates and soils will be used in the creation of the subsoil, soil, drainage channels and pathways under the scheme.

The purpose of the works is the placement of restoration soils and creation of open recreation area including pathways and drainage. The proposed recovery activity constitutes placement of 1 metre minimum soil profile consisting of a 700mm sub-soil and 300mm top soil to establish grassland and 2 metre for woodland planting. These works will be undertaken following placement of the capping layer.

The scheme is to be completed in line with approved restoration plan under the planning Consent P/14/1780 and in line with MAFF guidance on the Good Practice Guide For Handling Soils. The top soil (uppermost 300mm of the 1m profile) will comprise material capable of complying with BS3882, 2007 ‘Multipurpose or Specific purpose topsoil’.

We agree that this scheme, based on the information that has been provided, is a recovery activity.

Pre-operational and improvement conditions

The conclusion from the ESID review is that the pollution source directly affecting BH11 is from the former closed landfill operated under the Poisonous Waste Act 1972 and the Control of Pollution Act 1974.

The new gas monitoring boreholes BH11 and BH12 will be drilled into the water table along the northern perimeter to allow for a greater monitoring of the pollution plume but will not form part of the long term groundwater monitoring and also ties into a recommendation set out in the HRA.

The site adjoins historic and active landfills and the groundwater level information shows a flow direction of WSW. The downgradient boundary is the shared boundary between the existing Oak Farm site, and the Oak Farm Quarry North East extension area, while the upgradient source is partially affected by upgradient historic landfills. Therefore has potential for offsite influence we are requiring the site to install boreholes BH12 and BH13 on the western flank between BH9 and BH11. This will facilitate monitoring of the groundwater directly between the historic landfill and the site to provide further information on the quality impacts seen in BH10 and backing up the data observed within BH11.

Landfill gas

While methane compliance limits have been proposed, there has been no assessment of the data using appropriate methodology.

Carbon Dioxide should have Action Levels established to provide a warning indicator for whether subsurface conditions are changing and whether intervention is required. These should be combined with an appropriate action plan (which also incorporates appropriate responses to elevated methane), that prompts the operator to investigate and remediate as necessary.

The operator must undertake and provide this report for Environment Agency agreement. We have included this requirements as a pre-operational condition (PO1) before waste is deposited into the site.

Groundwater compliance limits

The compliance limits proposed for BH10 are acceptable.

The compliance limits for BH11 are significantly elevated due to the apparent upgradient offsite influence of historic landfills. The limits proposed for BH11 do not serve a purpose given that the limits are significantly elevated above the maximum background values observed to date.

Given that the contaminant impact appears to be a result of recent activities on the site (namely pumping out of the quarry water to facilitate the construction of the site, which has subtly impacted the local hydrogeological flow), we require further monitoring to establish a greater dataset and to confirm whether the values reported stabilise at the current concentration, increase or decrease. Dependant on what the results show, the compliance limits can be set with greater confidence.

We have included improvement condition IP1 for more data to be gathered before undertaking further assessment to establish an appropriate set of compliance limits for proposed boreholes BH12 and BH13.

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 identified information provided as part of the application that we consider to be confidential. We have excluded the expenditure plan from the public register. The decision was taken in accordance with our guidance on confidentiality.
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: • Environmental Health • Director of Public Health • Fire and Rescue Service • Food Standards Agency • Health and Safety Executive • Local Planning Authority • Public Health England The comments and our responses are summarised in the consultation section.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN 2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1', guidance on waste recovery plans and permits. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.
The site	
Extent of the site of the facility	The operator has provided plans which we consider are satisfactory, showing the extent of the site of the facility. The plans are included in the permit.
Deposit for recovery	We have agreed that the restoration of the landfill is deposit of waste for recovery.

Aspect considered	Decision
Biodiversity, heritage, landscape and nature conservation	The application is not within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat.
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.
Odour management	We have reviewed the odour management plan in accordance with our guidance on odour management. We consider that the odour management plan is satisfactory.
Noise management	We have reviewed the noise management plan in accordance with our guidance on noise assessment and control. We consider that the noise management plan is satisfactory.
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; and • the environmental risk assessment is acceptable. We made these decisions with respect to waste types in accordance with out guidance 'Waste acceptance at landfills' Version 1, November 2010.
Pre-operational conditions	Based on the information in the application, we consider that we need to impose pre-operational conditions. See key issues.
Improvement programme	Based on the information on the application, we consider that we need to impose an improvement programme. See key issues.

Aspect considered	Decision
Emission limits	ELVs have been added for the substances listed in the permit. We have imposed these limits because either a relevant environmental quality or operational standard requires this.
Monitoring	We have decided that monitoring should be added for the parameters listed in the permit, using the methods detailed and to the frequencies specified.
Reporting	We have specified reporting in the permit.
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Technical competence	Technical competence is required for activities permitted. The operator is a member of an agreed scheme. We are satisfied that the operator is technically competent.
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.
Financial provision	The financial provision arrangements satisfy the financial provisions criteria.
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.

Aspect considered	Decision
	Any unique condition, that is a condition distinct from a site specific condition needed to deliver the legislative standards need to be justified Provide additional text if needed, for example where specific comment on the growth duty is made by the applicant in their application.

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
No significant concerns
Summary of actions taken or show how this has been covered
No further action

Response received from
Dudley Metropolitan Borough Council - Environmental Safety and Health
Brief summary of issues raised
No adverse comments
Summary of actions taken or show how this has been covered
No further action

Response received from
Dudley Metropolitan Borough Council - Director of Public Health
Brief summary of issues raised
We recommend that any environmental permit should be conditional on ensuring that the appropriate mitigations are in place following industry best practice or technical guidance to ensure there is no impact to public health and wellbeing from noise, vermin, odours, dust and particulates. We also recommend that the results of any ongoing monitoring should be openly published.
Summary of actions taken or show how this has been covered
The application has been technically assessed and the permit contains modern conditions and standards to ensure that the activity is appropriately controlled. The permit includes a requirement for monitoring data to be submitted to us and this is placed on the public register.

No response received from the Fire and Rescue Service, Food Standards Agency, Health and Safety Executive, Local Planning Authority or the public.