

## Permitting decisions- Variation

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We have decided to issue the variation EPR/FB3301CV/V004 for Finmere Quarry Landfill site operated by OPES MRF 2013 Limited.

The facility location is Banbury Road, Finmere, Buckinghamshire, MK18 4AJ.

We consider that in reaching that decision we have taken into account all relevant considerations and legal requirements.

### Purpose of this document

This decision document provides a record of the decision making process. It:

- highlights [key issues](#) in the determination
- gives reasons for refusal
- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account.
- summarises the engagement carried out because this is an application of high public interest.
- 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 notice of variation and consolidation.

# Background

## 1. Description of the facility

Finmere Quarry Landfill is located approximately 400m south-west of the village of Finmere in Buckinghamshire. The site comprises an area of approximately 140 ha and is centred at National Grid Reference (NGR) SP 6279 3229. The landfill covers an area of approximately 25.3 ha. Finmere Quarry Landfill was an active sand and gravel quarry, with void created following mineral extraction being restored by landfilling with a range of non-hazardous wastes.

## 2. Application content

### Proposed Extension

The variation application included a proposal to extend the non-hazardous waste landfill area at the site to include the former settlement pond area in the south-west of the non-hazardous area of the site to create two new non-hazardous landfill cells located between the dismantled railway to the west and Finmere Plantation and the Materials Recycling Facility to the east. The two proposed non-hazardous landfill cells (Cells 12 and 13) with a combined area of approximately 5.6 ha were proposed for location to the south of Cell 11B. The variation application also included a proposed area for an inert landfilling area to the north however, this element of the application was withdrawn during determination so is not considered further in this document except where it impacts on our decision in relation to the proposed non-hazardous cells.

### Updates to management plans

The following management plans have been updated:

- Gas Management Plan (dated April 2022)
- Surface Water Management Plan (dated August 2022)
- Fugitive Emissions Management Plan (dated November 2021)

Updated management plans were submitted with the initial variation application. Further updates were requested through a Schedule 5 Notice. This notice coincided with updates to the same plans requested by the Environment Agency through compliance resulting from a Compliance Action Programme on site due to non-compliances. A set of revised management plans were submitted in January 2022 which were assessed as the final documents for the purpose of this variation determination with the exception of the Leachate Management Plan and the Gas Management Plan which were both revised again and resubmitted in April 2022 as a result of a request for information.

### Leachate management

New leachate management monitoring infrastructure was proposed as part of the variation application. This will impact on the Leachate Management Plan and therefore an improvement condition requires an update to the plan following the input of the new infrastructure and subsequent development of a compliance plan. A further improvement condition requires implementation of the revised plan.

#### New landfill gas flare

A second landfill flare has been added to the permit to ensure adequate gas management capacity on site.

#### Withdrawal of application elements

The application originally included a proposal for new inert filling areas but this element of the application was withdrawn by the operator on 08/09/2021. We therefore did not consider this part of the application any further within this decision document.

We were minded to refuse the addition of the new non hazardous landfill cells and confirmed that this was the case to the operator. They subsequently withdrew that aspect of the application on 01/04/2022. Based on this withdrawal we decided to progress with the remaining elements of the application.

The reason that we were minded to refuse the new non-hazardous cells (cells 12 and 13) was that based on the information that has been provided to us, we were not satisfied that the Applicant had adequately demonstrated that they understood the groundwater conditions in the area of the proposed new cells. As a result, we could not conclude that the proposed engineering and control measures would have provided adequate protection to the environment.

#### High Public Interest status

We originally deemed this application as a Site of High Public Interest (SHPI) for permitting purposes due to the environmental risk associated with the addition of the new cells. When this element of the application was withdrawn, we subsequently removed the SHPI status of the application. The primary reason for the public interest related to odour and we consider that updated management plans on site should not increase the risk of odour associated with the site. There are ongoing compliance actions relating to the odour management on site which have meant that the odour management plan submitted with the variation has already been superseded so this was not assessed as part of this variation.

# Key issues of the decision

## 1. Leachate Management

We do not consider that adequate information had been submitted in the Application to demonstrate that leachate will be managed appropriately and therefore that the updated Leachate Management Plan is acceptable. Further information was requested from the Applicant via a Schedule 5 Notice dated September 2021. The Applicant provided additional information in January 2022 and then a further update in April 2022.

The updates confirmed that additional leachate management and monitoring infrastructure is currently being installed within the landfill. We do not consider that the Leachate Management Plan can be approved but we have included an improvement condition in the permit setting out what we require to be updated in the LMP in order for us to consider it for approval (improvement condition IC13). There have also been a number of non-compliances on the landfill site relating to leachate levels and management and we hope to achieve an improvement in compliance through a response to a subsequent improvement condition (IC14).

We also require an updated Hydrogeological Risk Assessment to be submitted for approval as we do not consider that the HRA submitted in support of the variation application reflects the leachate management situation on site. We have specified the HRA submission under improvement condition IC15.

## 2. Gas Management

### Gas Management Plan

We assessed the GasSim Model on which the Landfill Gas Risk assessment submitted with the variation application was based and concluded that it did not contain accurate waste input data and therefore the output was not valid. We requested several additional revisions of the Landfill Gas Risk Assessment and as a result of these revisions, the Gas Management Plan was also updated. The final version of the Gas Management Plan received through the determination of this variation was dated April 2022. We have accepted this Gas Management Plan in support of this variation. It will form part of the on-site Environmental Management System and will need frequent review to ensure that it is keep up-to-date.

### Addition of a second flare

Adequate gas management on site relies on the capacity available for combustion of the gas and therefore reduction of odour potential, various pollutants and also methane. A total flare capacity of 1500 Nm<sup>3</sup>/h is proposed for the site following the addition of a second flare with a capacity of 500m<sup>3</sup>/h. We have assessed this and consider that it is acceptable based on the revised gas

risk assessment and our sensitivity analysis of it which indicates that the peak yield of 1400 Nm<sup>3</sup>/h. We requested clarification around the gas plant booster capacity and as a result of the Applicant's response we are satisfied that there is the intention to install 1500 Nm<sup>3</sup>/h of booster capacity at the site.

### Air quality impact assessment

H1 screening to assess potential impact on local air quality was carried out on the basis of the gas plant combusting a total of ~1000 Nm<sup>3</sup>/h (50<sup>th</sup> percentile), with 370 Nm<sup>3</sup>/h through the engine and 630 Nm<sup>3</sup>/h through the existing flare. The H1 screening showed that long term NO<sub>x</sub> concentrations were not insignificant but that no detailed modelling was required. We carried out sensitivity checks on the likely impact of the addition of a second flare and consider that it would not change the conclusions drawn from the initial H1 assessment and that detailed modelling would not be required. We consider that after the addition of the flare that there would still be adequate headroom between the Predicted Environmental Concentration (PEC) and the Air Quality Standard (AQS) to indicate an exceedance of the AQS unlikely.

We consider that the addition of a second flare should result in adequate capacity for appropriate gas management on site.

## **Decision considerations**

### **Operator Competence**

The site has had a number of recurring non compliances. We consider that the changes being made as a result of this variation should result in improvements in the management on site.

We are satisfied that sufficient financial resource is available to the Applicant for operation of the landfill.

### **Consultation**

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

## Responses from organisations

<b>Response received from UK Health Security Agency (UKHSA – formerly PHE) on 13/08/2021.</b>	
<b>Brief summary of issues raised:</b>	<b>Summary of action taken / how this has been covered</b>
<p>Areas of omission and gaps in the information contained in the application including:</p> <p>The overall risk rating bands have not been clearly defined in the specific risk assessments making it difficult to understand how the residual risk score accords to the level of risk.</p> <p>No detail regarding whether any new sensitive receptors are introduced by the extension of the permitted site boundary.</p> <p>Aware of previous odour complaints associated with the landfill site so it will be important that the EA are satisfied that all measures are in place to minimise odour impacting local residents.</p>	<p>See ‘Gas Management’ section key issues section of this document. We were minded to refuse the addition of two non hazardous landfill cells to the site. We consider the revised proposals for updates to management plans and a second flare should represent improvements to the management of the site.</p>

<b>Response received from Director of Public Health on 20/08/2021</b>	
<b>Brief summary of issues raised:</b>	<b>Summary of action taken / how this has been covered</b>
<p>Note of UKHSA’s comments on the lack of clarity on the values surrounding the risk matrix used and the lack of information about whether new sensitive receptors are introduced as a result of the extension.</p> <p>Aware of previous odour complaints associated with the landfill site so it will be important that the EA are satisfied that all measures are in</p>	<p>See ‘Gas Management’ section key issues section of this document. We were minded to refuse the addition of two non hazardous landfill cells to the site. We consider the revised proposals for updates to management plans and a second flare should represent improvements to the management of the site.</p>

place to minimise odour impacting local residents.	
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## Representations from individual members of the public

A total of 42 responses were received from individual members of the public. Some of the issues raised were the same as those considered above. Only those issues additional to those already considered are listed below:

<b>Response received from individual members of the Public</b>	
<b>Brief summary of issues raised:</b>	<b>Summary of action taken / how this has been covered</b>
Concerns about odour generated by the site.	See 'Gas Management' section key issues section of this document. We were minded to refuse the addition of two non hazardous landfill cells to the site. We consider the revised proposals for updates to management plans and a second flare should represent improvements to the management of the site.
Concern about the ability of the operator to manage the gas on site.	
Concern about emissions of hydrogen sulphide.	
Concern about emissions of methane and carbon dioxide.	
Concern about gas leaks from the site.	
Concern about dust from the site.	No new landfill cells have been authorised as a result of the variation and therefore there should be no increase in risk of dust.
Concern about flies.	No new landfill cells have been authorised as a result of the variation and therefore there should be no increase in risk of flies.
Concern about traffic from the site.	No new landfill cells have been authorised as a result of the variation and therefore there should be no increase in traffic.
Concern about an increase in waste being brought to the site.	No new landfill cells have been authorised as a result of the variation and therefore there should be no increase in waste input.
Concern about the location of the landfill in relation to residential receptors.	No new landfill cells have been authorised as a result of the variation and therefore there should be no

Concern about impacts on health including the respiratory system.	increase in risk to noise or dust emission. See 'gas management' section for information on air quality impact assessment.
Concern about impacts on wellbeing.	We were minded to refuse the addition of two non hazardous landfill cells to the site. We consider the revised proposals for updates to management plans and a second flare should represent improvements to the management of the site and therefore unlikely to negatively impact on wellbeing.
Concern about visual impact.	No new landfill cells have been authorised as a result of the variation and therefore there should be no change in visual impact.
Concern about noise.	We do not consider the variation will have a significant impact on noise. There are no new landfill cells authorised and the proximity of the gas compound to sensitive receptors is adequate to indicate that there should be no change in impact from noise.
Concern about rubbish.	No new landfill cells have been authorised as a result of the variation and therefore there should be no increase in levels of rubbish.
Concern about the competence of the operator.	See 'Operator competence' section key issues section of this document. We consider these changes authorised by this variation will represent improvements to the management of the landfill.
Concern about the ability of the operator to run the site safely.	See 'Operator competence' section key issues section of this document. We consider these changes authorised by this variation will represent improvements to the management of the landfill.
Concern about the Environment Agency's regulation of the site.	We are satisfied that the Environment Agency regulates this site in line with their requirements under the Environmental Permitting Regulations.