

Permitting Decisions - Variation

We have decided to grant the variation for Attlebridge Landfill Site (Phase 3) operated by Biffa Waste Services Limited.

The variation number is EPR/BV4495IX/V005.

The variation increases the permitted capacity of the leachate treatment plant.

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 considerations section to show how the main relevant factors have been taken into account

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.

Key issues of the decision

Leachate treatment plant

Listed activity.

The leachate treatment facility (LTP) at Attlebridge Landfill Site operates under Environmental Permit EPR/BV44951X. It is currently categorized as a Directly Associated Activity and is described as treating leachate with a capacity of <50 t/day before disposal or recovery. The permit restricts the LTP to accepting leachate from the current landfill phase (Phase 3) and the adjacent closed phases (Phase 2) of the Attlebridge Landfill Site.

Since 2016, the landfill has used an interim leachate management plan and successfully reduced leachate levels. The LTP's capacity has been expanded to >50 tonnes/day to handle higher leachate pumping rates. The permit's leachate treatment rate restriction was temporarily waived, allowing treatment of 80 m³/day. This decision was based on the belief that the increased rate posed no significant environmental risk, as the existing H1 assessment had been evaluated using an 80 m³/day discharge rate.

As part of this permit variation, the LTP's activity classification is formally changing from a Directly Associated Activity to a Listed Activity.

Improvement conditions

Due to an increase in treatment capacity beyond 50 tonnes per day, the leachate treatment activity is now considered a listed activity as noted above.

Consequently, the operator is obligated to adhere to the best available techniques (BAT) and the waste treatment reference (BREF) guidelines.

Attlebridge Phase 3 has been operating at this increased capacity under a Local Enforcement Policy (LEP) for a considerable period of time. The existing site infrastructure does not align with the BAT/BREF requirements due to some tanks and pipework being partially buried.

The BREF guidelines require the implementation of secondary containment for leachate storage and treatment facilities. The BAT document enables alternative appropriate measures to be used to minimise leaks and spills from primary containment. When secondary containment is employed, guidance from CIRIA 736: Containment systems for the prevention of pollution: secondary, tertiary, and other measures for industrial and commercial premises (2014) should be followed.

Therefore, as part of the permit variation two improvement conditions have been included. We are aiming to gather information about the current infrastructure through improvement condition 1 (IC1). The operator of the leachate treatment plant (LTP) will be required to submit a report to the Environment Agency. This report should demonstrate that the primary containment of the LTP is capable of safely treating and storing leachate to prevent accidental damage and pollution. The review should cover the design, construction, and integrity of the primary containment, including pipework. A suitably qualified and experienced person must perform the review. The report must include various aspects, such as the condition of the primary containment, proposed remedial work, installation of protective measures for above-ground portions, maintenance plans, and leak detection proposals.

The review report needs written approval from the Environment Agency and should outline findings, recommendations, and timelines for implementing any further remedial measures. Remedial actions should align with established guidance, such as the published guidance for landfill operators ([store and treat leachate gov.uk guidance](https://www.gov.uk/guidance/store-and-treat-leachate)). The operator must carry out the approved remedial measures within agreed timelines.

For improvement condition 2 (IC2) the operator is required to conduct a comprehensive review of the design, construction, and integrity of the existing leachate treatment plant. This review must adhere to the best available techniques reference document for waste treatment (2018) and the standards outlined in CIRIA C736. A suitably qualified and experienced person must perform the review, which includes assessing the physical condition and suitability of existing secondary containment under various loads, outlining necessary work to meet standards, proposing a maintenance and inspection plan, and justifying any decision to forego secondary containment.

A written report of the review's findings must be submitted to the Environment Agency, seeking written agreement. If the existing containment falls short of specified standards, the report must propose solutions with implementation timelines or suggest alternative measures to contain leaks on-site. Any additional measures must comply with condition 2.5.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made. However, we remove all information relating to financial provision from the public register.

The decision was taken in accordance with our guidance on confidentiality.

Identifying confidential information

We have not identified any further information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

The comments and our responses are summarised in the [consultation responses](#) section.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

Health & Safety Executive

Public Health England (now know as UK Health Security Agency)

Norfolk Council

Food Standards Agency

The comments and our responses are summarised in the [consultation responses](#) section.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances, we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape, and heritage, and/or protected species or habitats identified.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

- Odour
- Noise
- Fugitive emissions
- Accidents

The operator's risk assessments are satisfactory.

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.

Operating techniques for emissions that screen out as insignificant

Emissions of the following substances as referenced in Table 634/2 of document 19133302.634/A.1:

- Ammoniacal nitrogen
- Arsenic
- Boron
- Cadmium
- Chloride
- Chromium
- Copper
- Cyanide, total as CN
- Diazinon
- Iron
- Lead
- Mecoprop
- Mercury
- Nickel
- Sulphate
- Tin
- Zinc
- Fluoride

have been screened out as insignificant, and so we agree that the applicant's proposed techniques are Best Available Techniques (BAT) for the installation.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme. Further information can be found in the key issues section.

Emission limits

Emission Limit Values (ELVs) have been amended as follows:

Table S3.1 Leachate level limits and monitoring requirements

In support of the leachate level proposals, the operator has reviewed the hydrogeological risk assessment (HRA), habitats risk assessment, stability risk assessment (SRA) and the leachate / gas management infrastructure. The proposed increase to leachate level compliance limits to 4m at the leachate monitoring points and 5.5m at the leachate extraction points will not in theory have a detrimental effect on the site. The operator has reviewed the 2016 HRA against the most recent data for the site to check that it is still valid, such as leachate quality, groundwater levels / flow, and receptors. This HRA has the added benefit of assessing the leachate levels proposed in this application. The key assumptions of the 2016 HRA remain valid. The proposed maximum leachate levels (4m above the base) are significantly below the crest of the side slope liner (20m above base of landfill) and below the cap level. Therefore, the risk to the stability of the final waste slopes and capping system is negligible.

Table S3.3 Groundwater – emission limits and monitoring requirements

The HRA review identified that the peak concentrations and expected travel times for nickel, DCM and phenol supported a reduction in frequency of monitoring to annually. The table has been amended accordingly. The HRA review also recommended that mercury is included in the four yearly monitoring suites as a priority hazardous substance and cadmium is removed due to its declassification as a non-hazardous substance. Dichlorprop has also been included in place of simazine in accordance with the recommendations of the HRA review.

Table S3.4 Landfill Gas in external monitoring boreholes

The detailed report in Appendix C provides the technical basis for removing CO2 limits and table S3.4 has been amended accordingly. Action levels for CO2 have been set out in Table 4 of the Perimeter Gas Action Report. The statistical data sets show that CO2 Tmax for some boreholes is slightly higher than that for the background borehole Tmax for BH15. However, this difference is not significant and can be explained by the natural geology.

Monitoring

We have decided that monitoring should be added / amended for the following parameters, using the methods detailed and to the frequencies specified:

Table S3.9 Leachate - other monitoring requirements

The HRA review identified phenol and mercury as priority substances and have been added to the annual leachate monitoring suite accordingly.

Dichloromethane (DCM) is considered as a conservative proxy substance for mobile hydrophilic organics in leachate and has been included in the four-yearly suite. The HRA review also identified Dichlorprop as a priority substance and this is already included in the monitoring table.

Monitoring of Gas Emissions/External Landfill Gas

An updated drawing has been provided (A5121400) to represent the current situation.

The operator has also requested the removal of trace gas analysis in stable non-reactive hazardous waste, asbestos, or gypsum cells (Cell D) because these wastes are not expected to generate trace gases and we can rely on the monitoring at the inlet to the gas compound instead.

Table S3.7 Groundwater – other monitoring requirements

The HRA review identified that the peak concentrations and expected travel times for nickel, DCM and phenol supported a reduction in frequency of monitoring to annually. Table S3.7 has been amended accordingly. The HRA review also recommended that mercury is included in the four yearly monitoring suites as a priority hazardous substance and cadmium is removed due to its declassification as a non-hazardous substance. Dichlorprop has also been included in place of simazine in accordance with the recommendations of the HRA review. Nitrate (due to the process of ammonium oxidation to nitrate) has also been added.

Reporting

We have added / amended reporting in the permit for the following parameters:

- phenol and mercury, Dichloromethane (DCM) – Table S3.9

- nickel, DCM, mercury, Dichlorprop and phenol – Table S3.7

We made these decisions in accordance with TGN02 (February 2003).

Management system

We are not aware of any 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 the CIWM/WAMITAB scheme.

We are satisfied that the operator is technically competent.

Previous performance

We have assessed operator competence. There is no known reason to consider the applicant will not comply with the permit conditions.

No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

Financial provision

We are satisfied that the operator has made the necessary financial provision.

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 variation.

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 Responses

The following summarises the responses to consultation with other organisations, and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from PHE.

Brief summary of issues raised:

The main emissions of potential concern are fugitive leachate and odour emissions from the leachate treatment plant (LTP). We note that no significant odours are associated with the treatment process. All waste leachate is accounted for and discharged to sewer in accordance with effluent discharge consent.

Based on the information contained in the application supplied to us, Public Health England has no significant concerns regarding the risk to the health of the local population from the installation. This consultation response is based on the assumption that the permit holder shall take all appropriate measures to prevent or control pollution, in accordance with the relevant sector guidance and industry best practice.

Summary of actions taken: No further action required.

No further consultation responses were received.