

Natural Resources Wales Permitting Decisions

Chirk Landfill – FCC Waste Services (UK) Limited

Decision Document

Application for a normal variation

The application number is: PAN-030343

The permit variation number is: EPR/GP3830BG/V010

The operator is: FCC Waste Services (UK) Limited

The Installation is located at: Chirk Landfill Site, Pen-y-Bont Works, Chirk, Wrexham, LL14 5AR.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise, we have accepted the operators proposals.

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1. Executive summary

1.1. Application summary

The Installation is a closed landfill. The permit was varied to confirm the closed status on 05/12/2019. The installation continues to be regulated by NRW for the ongoing activities at the site including flaring of landfill gas, burning of landfill gas in engines, pumping of leachate, removal of leachate, deposition of limited quantities of restoration materials and environmental monitoring.

With regards to environmental monitoring, specifically for cadmium, manganese and zinc, the operator proposes to remove the emission limit values (ELV's) and monitoring requirements for groundwater in Table S3.4 of the permit for these three substances. The operator confirms that the elevated concentrations of these substances in the groundwater are consistent with the wider mining legacy environment and not a landfill-derived source.

The operator confirms that monitoring however should continue for cadmium, manganese and zinc in accordance with Table S3.10 in Schedule 3 of the permit - Groundwater other monitoring requirements.

The operator also proposes to increase the (ELV's) of ammoniacal Nitrogen at four monitoring points in Table S3.4 and confirms that that these increases do not alter the risk profile of the site.

1.2. Our decision

We have decided to issue the variation for Chirk Landfill Site operated by FCC Waste Services (UK) Limited.

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.

2. Receipt of the application

The application was received on 03/09/2025. In order for us to be able to consider the application duly made, we needed more information. We requested the following:

- More information on the financial provision
- Confirmation of OPRA score

A letter requesting this information was sent to the operator on 23/07/2026. Upon receipt of this information on 05/08/2026, we were able to consider the application duly made. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

3. Confidential information

The operator made no claim for commercial confidentiality, and we have not received information in relation to the application that appears to be confidential in relation to any party.

4. Legislation

The variation will be issued, under Regulation 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED
- subject to aspects of the Well-Being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016 which also have to be addressed.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that the decision on this application is consistent with its general purpose of pursuing the sustainable management of natural resources (SMNR) in relation to Wales and applying the principles of SMNR. In particular, NRW

acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in issuing the variation a high level of protection will be delivered for the environment and human health through the operation of the Installation in accordance with the permit conditions.

As the EPR regulator for Part A1 installations in Wales, NRW are required to determine any duly made Part A1 permit applications. This means that we must decide either to grant, or to refuse the variation based upon an objective assessment of the proposals against the detailed legal requirements of EPR. Our public participation statement¹ gives more information on what can, and cannot, be taken into account when making our permitting decision.

The application, and this decision document, only considers the permitting of the facility under EPR as described throughout the document. We only assess the installation and its impacts and cannot take into consideration indirect impacts which are not as a direct result of activity within the installation boundary.

Any proposed development and wider associated activities will be required to be compliant with all relevant and applicable law, for example, environmental law, health and safety law, planning law. This other legislation acts largely independently of EPR (although they may be inter-related). Such other matters are beyond both the scope of this document, and of our regulatory remit and expertise and are not relevant to our EPR permitting decision. Ensuring compliance with all other regulation and obtaining any required consents (such as planning permission) is the responsibility of those undertaking the development and is regulated by the relevant appropriate authority for each.

5. Consultation

No consultation has been carried out on this application, as it is an application for a normal variation not subject to consultation requirements. This decision was made in

¹[Natural Resources Wales / Public participation: how you can take part in our permit and licence consultations](#)

accordance the Environment Permitting Regulations (EPR), our statutory Public Participation Statement¹ and our Regulatory Guidance.

6. The Installation

6.1. Changes to the installation

This variation will remove the ELV's and monitoring requirements for cadmium, manganese and zinc from Table S3.4 in Schedule 3 of the permit. This variation will also increase the limits of ammoniacal Nitrogen from 0.5mg/l to 0.7mg/l at BH09; 1.0 mg/l to 1.2mg/l at BH10; 3.5mg/l to 3.7mg/l at BH12; and 0.92mg/l to 1.2mg/l at BH13 in Table S3.4

7. Operation of the installation

7.1. Operator competence

The operator is the sole operator of the Installation. We are satisfied that the operator is the person who will have control over the operation of the Installation after the variation is issued; and that they will be able to operate the Installation so as to comply with the conditions included in the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator².

Relevant Convictions

The operator has declared they have no relevant convictions. NRW's COLINS Database has been checked to confirm there are no relevant convictions. No relevant convictions were found.

Financial Provision

The Operator has proposed suitable financial provision. There is no known reason to consider that the Operator will not be financially able to comply with the Permit conditions. The decision was taken in accordance with EPR RGN 5 on Operator Competence.

² [RGN 1 Understanding the meaning of 'operator' \(naturalresources.wales\)](#)

7.2 Environmental Management System

The operator confirms that the environmental management system remains unchanged by this variation.

7.3. Operating techniques

Installation activities and assessment of Best Available Techniques

The operator confirms that a Hydrogeological Risk Assessment Review (HRAR) has been submitted in support of this permit variation application and that all other operating techniques remain unchanged.

8. Environmental Risk Assessment

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, water, sewer and discharges to ground or groundwater, global warming potential and generation of waste. All these factors have been considered during our determination and the relevant risks from this proposal are discussed in this and other sections of this document.

The next sections of this document explain how we have approached the critical issue of assessing the likely impact of emissions from the Installation on human health and the environment and what measures we are requiring ensuring a high level of protection.

The operator confirms that an Environmental Risk Assessment is not considered necessary as there are no changes to onsite activities, the permit variation application proposes to update the groundwater ELV's and monitoring requirements of Table S3.4 only. We agree with this proposal.

8.1 Hydrogeological Risk Assessment Review (HRAR)

The report confirms the proposal to remove cadmium, manganese and zinc from the groundwater compliance schedule in Table S3.4 of the permit. The operator has provided the report as the evidence base and justification for the proposal.

The report confirms that monitoring data indicates that manganese and zinc concentrations reflect baseline groundwater conditions within the local mining-affected environment rather than landfill impacts. Elevated concentrations occur across multiple geological units, pre-date recent compliance concerns, show no worsening trend, and are not associated with landfill indicator determinands. In addition, manganese concentrations substantially exceed those present in leachate. The absence of landfill-specific contaminants, including naphthalene and mecoprop, further supports the conclusion that groundwater chemistry is controlled by historical mining activities, colliery spoil, coal washing residues and Coal Measures geochemistry rather than landfill-derived contamination.

The report was audited by a Lead Specialist Advisor in Hydrogeology at NRW who confirmed agreement with the conclusions and the proposal to remove cadmium, manganese and zinc from the groundwater compliance schedule in Table S3.4 of the permit.

Our lead specialist confirmed that the removal of manganese, zinc and cadmium as groundwater compliance parameters is considered technically justified. Long-term monitoring shows no progressive deterioration in groundwater quality, no meaningful correlation with key landfill indicators such as chloride and ammoniacal nitrogen, and continued evidence of hydraulic containment.

Therefore, we agree that the observed metal concentrations are consistent with the wider mining legacy environment and not a landfill-derived source. There is insufficient evidence to support continued use of these parameters as indicators of landfill performance. As per Section 1.1 above, and in accordance with Table S3.10 in Schedule 3 of the permit, periodic surveillance of groundwater will continue for cadmium, manganese and zinc, to confirm that groundwater chemistry remains stable

and to provide early warning of any future hydrochemical changes, without the need for compliance assessment against permit ELVs. With regards to the proposal to increase the ammoniacal nitrogen ELV's at four monitoring points in Table S3.4 the Lead Specialist Advisor in Hydrogeology at NRW has, based on the significant analytical dataset presented has also agreed to this proposal.

8.2 Assessment of Impact on Air Quality

There will be no change to emissions to air as a result of the variation.

8.3 Emissions to soil, surface and groundwater

There will be no change to emissions to soil, surface or groundwater as a result of the variation.

8.4 Emissions of Odour

There will be no change to emissions of odour as a result of the variation.

8.5 Emissions of Noise

There will be no change to emissions of noise as a result of the variation

9. The Permit Conditions

9.1. Emission Limits

For the reasons confirmed in Section 8.1 above, we have removed the ELV's and monitoring requirements for cadmium, manganese and zinc from Table S3.4 of the permit. As per Section 6.1 above, we have increased the ELV's for ammoniacal nitrogen at four ground water emission points, BH9, BH10, BH12 and BH13.

9.2. Monitoring

For the reasons confirmed in Section 8.1 above we have removed the monitoring requirements in Table S3.4 for cadmium, manganese and zinc.

9.3. Reporting

We have not made any changes to the reporting requirements in Table 4.1 for cadmium, manganese and zinc.

10. OPRA

The OPRA score has changed as a result of this variation. The new agreed score is now 77 (was 80) This will form the basis for ongoing subsistence fees.