

Natural Resources Wales permitting decisions

Dŵr Cymru Cyfyngedig Five Fords WwTW Gas to Grid facility

Decision Document

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Variation

The variation number is: EPR/AP3139FT/V005

The Operator is: Dŵr Cymru Cyfyngedig

The Installation is located at: Five Fords WwTW Gas to Grid Facility, Cefn Road, Abenbury, Wrexham, Clwyd, LL13 0PA

We have decided to issue the variation for Five Fords WwTW Gas to Grid facility operated by Dŵr Cymru Cyfyngedig.

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:

- 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 Operator's proposals.

Key issues of the decision

Receipt of application

The Application was accepted as duly made on 15/09/2023. This means that 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.

Proposed changes

Dŵr Cymru Cyfyngedig operates an advanced anaerobic digestion (AAD) facility, which treats sewage sludge and cakes to generate biogas, at the Installation. Biogas is transported to the Installation's Gas to Grid facility, where it is used to generate electricity for export to the National Grid. A small amount of biogas is burned in two on-site combined heat and power engines to generate heat and electricity for use at the Installation. The facility treats sewage sludge and cakes generated at the adjacent Five Fords Waste Water Treatment Works (WwTW) and also takes sludge and cakes from other WwTWs in North Wales.

During a routine compliance inspection carried out on 22/06/2022, NRW noted that sludge cakes were being stored in storage bays located outside the Installation boundary. The Operator submitted this variation application in order for this activity, and the parcel of land on which it is carried on, to be included in the permit and the Installation boundary.

The storage bays are used to maintain sludge movement throughout North Wales, servicing the needs of satellite sludge treatment centres at times of reduced capacity at the site. Under normal operation, all sludge cakes received at the site will be directly imported into the AAD import facility and will not be stored in the storage bays. However, at times of increased seasonal demand, or when throughput is reduced as a result of operational challenges at the AAD or other AADs in Dwr Cymru Cyfyngedig's North Wales network, sludge cakes may be diverted to the storage bays and held until capacity allows them to be imported directly into the AAD, or be diverted

to another AAD facility, either within Dwr Cymru Cyfyngedig's North Wales network, or for treatment via a third party.

During the determination we decided we needed further information from the Operator in order to complete our determination assessment. We issued to the Operator a Notice for Further Information on 10/11/2023, asking for:

In relation to the transport by road of sludge cakes and sludge material from the Sludge Cake Storage Pad / Bays to the Advanced Anaerobic Digester, please provide:

- An environmental risk assessment that describes how the risks to the environment associated with this activity will be controlled and minimised;
- A description of the operating techniques that will be employed to ensure adequate control of risks to the environment, which should include a description of how these techniques represent Best Available Techniques for this activity (if applicable); and
- A revised site plan that includes within the Installation Boundary, the internal road(s) that will be used to transport the sludge cake and sludge material from the Sludge Cake Storage Pad / Bays to the Advanced Anaerobic Digester.

We asked for this information to be supplied to us by 24/11/2023 and the Operator provided it on 21/11/2023. Also on 21/11/2023, the Operator asked us to add the following waste codes to Table S2.2 of the permit:

16	OTHER WASTES FROM INDUSTRIAL PROCESSES
16 10	Aqueous liquid wastes defined for off-site treatment
16 10 02	Aqueous liquid wastes other than those mentioned in 16 10 01, including cesspool waste, waste from railway sanitary conveniences, waste from portable sanitary conveniences and other sewage sludge
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTEWATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 06	sludges from physico-chemical treatment other than those mentioned in 19 02 05 (sewage sludge only)
19 05	description non-composted fraction of municipal and similar wastes
19 05 03	off-specification compost (sewage sludge only) and sewage sludge composted with biodegradable non-wastes only
19 06	description digestate from anaerobic treatment of animal and vegetable waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (sewage sludge only).

We have also added in a standard condition requiring the Operator to provide quarterly returns on the volume of waste imported to and exported from the site. This is in line with our regulatory policy on tracking waste movements.

Consultation

There was no requirement to carry out a consultation as part of this normal variation. The decision was taken in accordance with RGN 6 High Profile Sites, our Public Participation Statement and our Working Together Agreement.

Operator

We are satisfied that the Operator is the person who will have control over the operation of the facility after the issue of the variation. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.

The facility

The regulated facility is an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting:

- S5.4 A(1)(b) - Recovery of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving one or more of the following activities, and

excluding activities covered by Council Directive 91/271/EEC concerning urban waste-water treatment (a)— (i) biological treatment;

- 1.2 A(1)(a) – refining gas where this is likely to involve the use of 1,000 tonnes of gas in any 12-month period.

Schedule 1 of EPR defines ‘Installation’ to include ‘directly associated activities’ (‘DAA’). At this Installation, the DAAs include propane storage and transfer plant, steam and electrical power supply, emergency flare operation, gas storage, siloxane removal plant, discharge of condensate, digestate storage and sludge cake storage.

The Installation is also subject to Schedule 25A of EPR (relating to Medium Combustion Plant (MCP)), due to the presence of 2 x 1.668MWth steam raising boilers.

Legislation

The variation has been issued under Regulation 20 of the EPR. The Environmental Permitting regime is the 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 Industrial Emissions Directive; and
- 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.

NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources

All applicable European directives have been considered in the determination of the application.

The site

This variation involves the incorporation of an additional parcel of land within the Installation boundary. The Operator has provided a plan which includes this additional parcel of land and shows the extent of the site of the facility. We consider this plan to be satisfactory. The Operator is required to carry on the permitted activities within the site boundary.

Site condition report

The Operator has submitted a Site Condition Report for the additional parcel of land that has been added to the Installation as part of this variation. The Site Condition Reports from 2011 - which supported the original permit application – and 2019 – which supported the variation application to include the advanced anaerobic digester – remain valid for the areas of the Installation boundary to which they refer as no changes have taken place in these areas.

We consider the description of the parcel of land that has been included within the Installation boundary as part of this variation to be satisfactory. The decision was taken in accordance with our guidance on site condition reports – guidance and templates (H5).

Biodiversity, Heritage, Landscape and Nature Conservation

The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitats. However, Habitats Regulations (HR), Countryside and Rights of Way (CROW) Act 2000 and non-statutory sites assessments are not required because:

- In relation to HR, there is no conceivable impact pathway to European Sites by virtue of the scale or location or nature of the project;
- In relation to the CROW Act, the proposal is not likely to damage the features of any Sites of Special Scientific Interest; and
- In relation to non-statutory sites, the proposal is not likely to cause significant pollution.

Environmental Risk Assessment

Water

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent pollution of ground and surface water.

Soil

The Operator has provided a description of the condition of the additional parcel of land included within the Installation boundary as part of this variation. We consider this description to be satisfactory. The decision was taken in accordance with our guidance on site condition reports – guidance and templates (H5).

Odour, Noise, Fugitive Emissions and Pests

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise emissions of odour, noise and fugitive emissions, and control pests, and to prevent pollution from these environmental aspects.

Operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes. We have added the following new Operating Techniques to Table S1.2:

Application PAN-022986	Report entitled 'Strategic Storage Management Plan'	15/08/23
Application PAN-022986	Report entitled 'RFI Point 3 Response'	15/09/23
Application PAN-022986	Report entitled 'Amended ERA'	21/11/23
Application PAN-022986	Report entitled 'Access Road Operating Techniques'	21/11/23

The proposed techniques for priorities for control are in line with the benchmark levels contained in the TGN and we consider them to represent appropriate techniques for the facility.

The permit conditions

We have removed Condition 4.2.5 from the permit. This Condition related to the requirement to provide an annual Solvent Management Plan. This requirement is not relevant to any of the activities carried on at this Installation.

Incorporating the application

We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.

These descriptions are specified in the Operating Techniques table in the permit.

OPRA

The OPRA score at permit issue is 114.