

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Dwr Cymru Cyfyngedig

**Cardiff East Wastewater Treatment
Works CHP Facility
Cardiff East Wastewater Treatment
Works
Tide Fields Road
Rover Way
Tremorfa
Cardiff
CF24 2RX**

Variation number

EPR/FP3232KG/V003

Permit number

EPR/FP3232KG

Cardiff East Wastewater Treatment Works CHP Facility

Permit number EPR/FP3232KG

Introductory note

This introductory note does not form a part of the notice.

The following notice gives notice of the variation and consolidation of an environmental permit.

This is a permit variation following the publication of the revised Best Available Techniques (BAT) Reference Document (BREF) Waste Treatment. The associated BAT conclusions to this document were published on the 17 August 2018 in the Official Journal of the European Union.

This variation incorporates the changes required by the Industrial Emissions Directive following a statutory review of permits in the Waste Treatment sector. These include the amendment of the wording of several permit conditions relating to notifications, changes to emission limits and monitoring requirements. The interpretation section of the permit has also been updated and the opportunity has been taken to consolidate the original permit and subsequent variations.

We are satisfied that the operator will be compliant with the published BAT conclusions which will apply from 17 August 2022.

The rest of the installation is unchanged and continues to be operated as follows:

This permit allows the operator to carry out Anaerobic Digestion of waste from the onsite Waste Water Treatment Works. The site benefits from bunding and a sealed drainage system capable of containing any potential spills from the AD process. The throughput for the Anaerobic Digestion installation is 160,000 tonnes per annum.

The site utilises the biogas generated from the Anaerobic Digestion process to produce heat and electricity using a Combined Heat and Power (CHP) Unit. The biogas generated by the digesters is combusted.

The waste facility will include 3No CHP units, each unit comprising a gas engine, composite boiler and steam delivery pipework with a combined total thermal input capacity of 11.235MW. Each unit has a thermal input capacity of 3.745MWth, and electrical generating capacity of 1.56MWe each and a thermal generating capacity of 0.84MWth.

Biogas will be combusted in the 3No. CHP gas engines that make up the CHP units and drive electrical generators. The biogas will be treated pre combustion by dedicated Siloxane removal equipment which removes 95% of the Siloxane prior to combustion. Heat will be recovered for use in the Cardiff WwTW for sewage sludge treatment. Hot exhaust gases will be used to generate steam in the composite boilers and cooling water from the CHP will pass through heat exchangers to produce hot water.

The 3No. composite boilers are each linked to a CHP unit, and steam delivery pipework. The exhaust from the CHP gas engine, together with combustion of natural gas, will provide the heat to raise the steam necessary. Each boiler has a natural gas thermal capacity of 2.5MW.

The schedules specify the changes made to the permit. Schedule 1 of the notice specifies the conditions that have been varied and Schedule 2 comprises a consolidated permit which reflects the changes being made.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

| Status log of the permit | | |
|--|------------------------------------|---|
| Description | Date | Comments |
| Application EPR/FP3232KG/A001 | Duly Made 27/11/09 | |
| Notice for Further Information | Dated 11/03/10 | Received electronically 07/04/10 |
| Confirmation of carbon monoxide limit | Sent electronically 20/04/10 | Received electronically 29/04/10 |
| Permit determined | 26/04/10 | |
| Application EPR/FP3232KG/A002 Duly Made | 14/12/12 | Variation to add in Siloxane removal process |
| Application EPR/FP3232KG/A002 Issued | 28/03/13 | Varied and consolidated permit issued to Dwr Cymru Cyfyngedig |
| Regulation 61 Notice sent to the Operator | 05/04/19 | Issue of a Notice under Regulation 61(1) of the EPR. Natural Resources Wales initiated review and variation to vary the permit following the publication of the revised Best Available Techniques (BAT) Reference Document (BRef) for Waste Treatment. |
| Regulation 61 Notice response | 27/09/19 | Response received from the operator |
| Additional information received | 28/02/20 | Additional response provided to sections 1, 2, 3, 4, 5, 6 and 7 of Reg 61 Notice |
| NRW initiated variation determined EPR/FP3232KG/V003 | 22/04/21 | Varied and consolidated permit issued in modern condition format |

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Natural Resources Body for Wales ("Natural Resources Wales") in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number:

EPR/FP3232KG

Issued to:

Dwr Cymru Cyfyngedig

Whose registered office is:

Dŵr Cymru Welsh Water Linea

Fortran Road

St. Mellons

Cardiff

CF3 0LT

Company registration number: **02366777**

to operate an installation at:

Cardiff East Wastewater Treatment Works CHP Facility

Tide Fields Road

Rover Way

Tremorfa

Cardiff

CF24 2RX

to the extent set out in the schedules.

The notice shall take effect from 22/04/2021.

Signed

Date

| | |
|--------------------|-------------------|
| Holly Noble | 22/04/2021 |
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Authorised on behalf of Natural Resources Wales

Schedule 1

All conditions have been varied by the consolidated permit as a result of a Natural Resources Wales initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.