

Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2007

Hafod Quarry Landfill

Cory Environmental (Central) Limited
Bangor Road
Johnstown
Wrexham
LL14 6ET

Variation notice number
EPR/PP3139GB/V004

Permit number
EPR/PP3139GB

Hafod Quarry Landfill

Permit Number EPR/PP3139GB

Introductory note

This introductory note does not form a part of the permit

Cory Environmental (Central) Limited have applied to vary permit EPR/PP3139GB to include the installation and operation of No. 4 landfill gas engines for the purposes of electricity generation. Included in this variation application is the installation of the Landfill Gas Utilisation Compound (LFGU), subsequent repositioning of the sites existing gas flare and the removal and installation of an existing surface water management pond.

As part of the Variation to the Permit, emission limits have been set for discharges from the landfill gas engines, and one flare. These emission limits have been set to comply with the relevant landfill gas management criteria as set out in the Environment Agency's landfill gas management guidance note LFTGN 03. Table TS1.2 has also been updated to include the new operating techniques in the application.

The following notice, which is issued pursuant to regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations S.I.2007 No. 3538 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility/facilities

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions and Schedule 3 lists any conditions that have been added.

Status Log of the permit

Detail	Date	Response Date
Application reference BS8621 (EPR No. EPR/BS8621/A001)	Duly Made 26/11/02	
Request for further information	01/05/03	29/05/03
Request for further information	25/07/03	08/08/03
Permit Determined	08/10/04	
Variation Reference TP3032LA (EPR No. EPR/BS8621/V002)	Duly Made 09/10/06	
Variation Reference TP3032LA (EPR No. EPR/BS8621/V002) determined	28/02/07	
Transfer Reference PP3139GB (EPR No. EPR/PP3139GB/T001)	Duly Made 26/09/08	
Transfer Reference PP3139GB (EPR No. EPR/PP3139GB/T001) determined	26/11/08	
Agency variation reference EPR/PP3139GB/V002	27/11/08	
Variation application reference GP3034GM (EPR No. EPR/PP3139GB/V003)	Duly Made 13/01/09	
Variation application reference GP3034GM (EPR No. EPR/PP3139GB/V003) determined	27/03/09	
Variation Application (PAS Reference KP3933KM) EPR/PP3139GB/V004	Duly made 01/04/09	
Additional Information Requested	26/05/09	15/07/09
Variation determined EPR/PP3139GB	25/09/09	

End of Introductory Note

Notice of variation

Environmental Permitting
(England and Wales) Regulations 2007

Permit number

EPR/PP3139GB

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2007 (SI 2000 No 3538) varies the permit as set out below.

Cory Environmental (Central) Limited ("the operator"),

whose registered office is

2 Coldbath Square

London

EC1R 5HL

company registration number **02773558**

holds a permit to operate a regulated facility at

Hafod Quarry Landfill Site

Bangor Road

Johnstown

Wrexham

LL14 6ET

and that permit is varied to the extent set out in Schedules 1 to 3 of this notice.

The notice shall take effect from 25/09/2009

Name	Date
<i>M. Bischer</i>	25/09/2009

M. Bischer – Principal Permitting Team Leader, National Permitting Service

Authorised on behalf of the Agency

Schedule 1 – conditions to be deleted

2.6 Pre-operational Conditions

There are no pre-operational conditions in this permit

Schedule 2 – conditions to be amended

Conditions are amended as follows:

Permitted activities

2.1.1 Table S1.1 (the “activities”) is amended as follows:

Table S1.1.		
Specified Activities		
Activity under Schedule 1 of the Regulations/ Associated Activity	Description of specified activity	Limits of specified activity
Section 5.2Part A(1)(a) The disposal of waste in a landfill.	Landfill for non-hazardous waste	Receipt, handling, storage and disposal of non-hazardous wastes, consisting of the types and quantities specified in condition 2.1.2, as an integral part of landfilling.
Section 1.1 Part A(1) (b) (iii) fuel manufactured from, or comprising, any other waste, in an appliance with a rated thermal input of 3 or more megawatts, but less than 50 megawatts.	Utilisation of landfill gas for energy recovery in a proposed appliance with a thermal input of 3 or more megawatts, but less than 50 megawatts	Landfill gas arising from the Hafod Quarry Landfill site
Directly Associated Activity		
Landfill Gas Flaring	Flaring of landfill gas for disposal in an appliance	Landfill gas arising from the Hafod Quarry Landfill site.
Leachate management	Storage of leachate pre-discharge	Leachate arising from the landfill
Water discharges to controlled waters	Controlled discharge of site drainage from the installation.	From surface water management system to point of entry to controlled waters

2.1.2 Table S1.2 has been amended to include the following

Table S1.2 Operating techniques		
Description	Parts	Date Received
Consolidated Application	The response to questions 1.1, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, in part B of the Application Form, excluding the section referred to in the Schedule 4 notice dated 01/05/2003 and letter from the Agency dated 25/07/2003.	08/08/2003
Letter from M W H Associates Ltd in response to Schedule 4 notice dated 01/05/2003.	Where comments in the M W H Associates Ltd letter dated 29/05/2003 are agreed in writing with the Agency.	29/05/2003
Letter from M W H Associates Ltd in response to Schedule 4 notice dated 25/07/2003.	Where comments in the M W H Associates Ltd letter dated 08/08/2003 are agreed in writing with the Agency.	08/08/2003
Compliance with Improvement condition - Habitats monitoring plan dated 14/09/2006	All	14/09/2004
Revised surface water management plan reference MW4553/3/RAC and addendum.	All	03/08/2006 and 18/08/2006 Agreed 21/08/2006
Letter dated 14/09/2006 regarding additional waste.	All	Letter agreeing waste dated 19/09/2006
Compliance with improvement condition – Gas monitoring plan dated 30/06/2006 and 23/10/2006 and drawing reference MW4557/2/01 Rev B	All	Agreed 25/10/2006
Landfill Gas Operating techniques outlined in the Variation application received on 1/04/09 (reference Cory Environmental Ltd, Landfill Gas Management Plan v1, March 2009) and request for further information (26/05/09)	All	01/04/09 and 15/07/09

Table S1.5 has been amended to include the following

Table S5.1 Reporting of Monitoring Data			
Parameter	Emission or monitoring point/ reference	Reporting period	Period begins
Leachate levels As required by condition 3.6.1	Leachate monitoring points shown on drawing reference 2425/2/021	Monthly	08/10/2004
Emissions to air Parameters as required condition 3.6.1	Emission points specified in Schedule 4, Table S4.2	Annually	From date of installation of landfill gas engines and flare
Emissions to water Parameters as required condition 3.6.1	SW1A, SW2	Monthly for daily parameters Quarterly for other parameters	08/10/2004

Groundwater Parameters as required by condition 3.6.1	Drift HA01A(T), HA02A(T), HA,02A(M), HA04A(T), HA04A(M), HA05(T), HA06A(M), HA06B(T), HA09A(T), HA11B(T), HA12A(T), HA12A(M) Upper Ruabon Marl HA01B(B), HA02B(B), HA04B(B), HA05(B), HA06A(B), HA09A(B), HA11 A(B), HA12B(B) URM Limestone HA01B(M), HA09B(M), HA11B(M) C1, C2, C3	Quarterly Annually for annual parameters	08/10/2004
Landfill gas surface emissions Parameters as requested by condition 3.6.1	Temporarily and permanently capped surfaces	Annually	From completion of permanent or temporary
Particulate matter Parameters as requested by condition 3.6.1	NW and SE boundaries as described in section 2.10.08 of consolidated application	Quarterly	08/10/2004
Landfill gas lateral migration Parameters as requested by condition 3.6.1	HA06A(M), HA06A(B), HA06B(T), HA09A(T), HA09A(B), HA09B(M) HA01A(T), HA01B(M), HA01B(B), HA02A(T), HA02A(M) HA02B(B), HA04A(M), HA04A(T), HA04B(B), HA05(T), HA05(B), HA10(T), HA10(M), HA10(B), HA11A(B), HA11B(T), HA11B(M), HA12A(T), HA12A(M), HA12B(B), 1 to 9, G10 to G26	Monthly	08/10/2004
Other Landfill gas monitoring Parameters as required by condition 3.6.1	Leachate monitoring points as shown on drawing reference 2425/2/021, Active gas extraction wells as shown on drawing reference 2425/2/023, Representative Sample	Monthly Annually for annual parameters	08/10/2004
Other leachate monitoring Parameters as required by condition 3.6.1 Representative sample from each cell	Leachate monitoring points shown on drawing reference 2425/2/021 List I screen	Quarterly Annually for annual parameters Annually	08/10/2004
Other surface water monitoring Parameters as required by condition 3.6.1	SW1, SW1A, SW2, SW3, SW4, surface water lagoons 1 and 2	Quarterly	08/10/2004

Schedule 4, Table S4.2 is amended as follows:

Table S4.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
B1 (flare located in proposed gas compound) Flare on site plan 22734 – S02 dated October 2008	Nitrogen Oxides (NO _x)	Flare for landfill gas collected from the Hafod Quarry Landfill site	150 mg/m ³	Hourly mean	Annual	Extractive sampling and Chemiluminescence
	Carbon monoxide (CO)		50 mg/m ³			Extractive sampling and non-dispersive infra red analysis
	Total Volatile Organic Compounds (VOCs)		10 mg/m ³			Extractive sampling and FID analysis
	Non Methane Organic Compounds (NMVOCs)		5 mg/m ³			Extractive sampling onto sorbent extraction by CS ₂ , analysis by GC with appropriate detector
E1, E2, E3 and E4 (Exhaust from landfill gas engine commissioned post 31/12/2005) Landfill Gas Plant on site plan 22734 – S02 dated October 2008	Nitrogen Oxides (NO _x)	Landfill gas engine for landfill gas collected from the Hafod Quarry Landfill site	500 mg/m ³	Hourly mean	Annual	Extractive sampling and Chemiluminescence
	Carbon monoxide (CO)		1400 mg/m ³			Extractive sampling and non-dispersive infra red analysis
	Total Volatile Organic Compounds (VOCs)		1000 mg/m ³			Extractive sampling and FID analysis
	Non Methane Organic Compounds (NMVOCs)		75 mg/m ³			Extractive sampling onto sorbent extraction by CS ₂ , analysis by GC with appropriate detector

Schedule 3 – conditions to be added

Condition 2.6 Pre-operational Techniques

Condition 2.6.1 The operations specified in Schedule 1, Table 1.5 shall not commence until the measures specified in that table have been completed.

Schedule 1, Table S1.5 is added as follows:

Table S1.5 Pre-operational measures for future development

Reference	Operation	Pre-operational Measures
1	Commissioning of No. 4 Landfill Gas Engines and No. 1 High Temperature Flare	At least 1 month prior to commissioning the landfill gas engines, high temperature flare and associated infrastructure, the Operator shall submit a report to the Agency, that must be approved in writing by the Agency before commissioning works commence, which includes the following details: i) Engine specifications; ii) A comparison of stack heights with the AQ model;