



ENVIRONMENT  
AGENCY

# Variation Notice with introductory note

The Environmental Permitting (England & Wales) Regulations 2007

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Hafod Quarry Landfill

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

Variation Notice Number

**EA/EPR/PP3139GB/V003**

Permit number

**EPR/PP3139GB**

# Hafod Quarry Landfill

## Permit Number EPR/PP3139GB

### Introductory note

#### ***This introductory note does not form a part of the permit***

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.

The notice comprises schedule 1 containing conditions to be deleted, schedule 2 conditions to be amended and schedule 3 conditions to be added.

This variation reflects the fact that the Operator wishes to extend the types of wastes accepted at the landfill to the full range of European Waste Catalogue (EWC) codes within the Non-Hazardous category.

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	

Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation			
Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Shropshire Waste Management Limited	EAWML/ 37201	30/04/1999	Fully
SITA (Hafod Quarries Ltd)	CG0397901	25/05/2002	Fully
Hafod Quarries Ltd	CG0323101	13/06/2000	Fully

#### End of Introductory Note

Variation number: GP3034GM

Date of issue: 27<sup>th</sup> March 2009



## Variation Notice

Environmental Permitting  
(England and Wales) Regulations 2007

# Variation Notice

Permit number

**EPR/PP3139GB**

Variation number

**EA/EPR/PP3139GB/V003**

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"),

of whose registered office is

**2 Coldbath Square**

**London**

**EC1R 5HL**

company registration number 02772558

to operate an installation at

shall operate a regulated facility at

**Hafod Quarry Landfill**

**Bangor Road**

**Johnstown**

**Wrexham**

**LL14 6ET**

to the extent set out in schedules 1 to 3 of this variation notice.

Signed

Date

	27 <sup>th</sup> March 2009
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Ann Weedy – PPC Team Leader

Authorised to sign on behalf of the Agency

## **SCHEDULE 1 – CONDITIONS TO BE DELETED**

1. None.

## **SCHEDULE 2 – CONDITIONS TO BE AMENDED**

2. The following permit conditions and schedules are amended:

Schedule 3 – List of permitted wastes:

### **Schedule 3 – List of permitted wastes**

#### **01 Wastes Resulting from Exploration, Mining, Quarrying, and Physical and Chemical Treatment of Minerals**

##### **01 01 wastes from mineral excavation**

01 01 01 wastes from mineral metalliferous excavation

01 01 02 wastes from mineral non-metalliferous excavation

##### **01 03 wastes from physical and chemical processing of metalliferous minerals**

01 03 06 tailings other than those mentioned in 01 03 04 and 01 03 05

01 03 08 dusty and powdery wastes other than those mentioned in 01 03 07

01 03 09 red mud from alumina production other than the wastes mentioned in 01 03 07

##### **01 04 wastes from physical and chemical processing of non-metalliferous minerals**

01 04 08 waste gravel and crushed rocks other than those mentioned in 01 04 07

01 04 09 waste sand and clays

01 04 10 dusty and powdery wastes other than those mentioned in 01 04 07

01 04 11 wastes from potash and rock salt processing other than those mentioned in 01 04 07

01 04 12 tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11

01 04 13 wastes from stone cutting and sawing other than those mentioned in 01 04 07

##### **01 05 drilling muds and other drilling wastes**

01 05 04 freshwater drilling muds and wastes

01 05 07 barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06

01 05 08 chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06

#### **02 Wastes from Agriculture, Horticulture, Aquaculture, Forestry, Hunting and Fishing, Food Preparation and Processing**

##### **02 01 wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**

02 01 03 plant-tissue waste

02 01 04 waste plastics (except packaging)

02 01 06 animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site

02 01 07 wastes from forestry

02 01 09 agrochemical waste other than those mentioned in 02 01 08

02 01 10 waste metal

##### **02 02 wastes from the preparation and processing of meat, fish and other foods of animal origin**

02 02 01 sludges from washing and cleaning

02 02 03 materials unsuitable for consumption or processing

02 02 04 sludges from on-site effluent treatment

##### **02 03 wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**

02 03 01 sludges from washing, cleaning, peeling, centrifuging and separation

02 03 02 wastes from preserving agents

02 03 03 wastes from solvent extraction

02 03 04 materials unsuitable for consumption or processing

02 03 05 sludges from on-site effluent treatment

##### **02 04 wastes from sugar processing**

02 04 01 soil from cleaning and washing beet  
 02 04 02 off-specification calcium carbonate  
 02 04 03 sludges from on-site effluent treatment  
**02 05 wastes from the dairy products industry**  
 02 05 01 materials unsuitable for consumption or processing  
 02 05 02 sludges from on-site effluent treatment  
**02 06 wastes from the baking and confectionery industry**  
 02 06 01 materials unsuitable for consumption or processing  
 02 06 02 wastes from preserving agents  
 02 06 03 sludges from on-site effluent treatment  
**02 07 wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)**  
 02 07 01 wastes from washing, cleaning and mechanical reduction of raw materials  
 02 07 02 wastes from spirits distillation  
 02 07 03 wastes from chemical treatment  
 02 07 04 materials unsuitable for consumption or processing  
 02 07 05 sludges from on-site effluent treatment  
**03 Wastes from Wood Processing and the Production of Panels and Furniture, Pulp, Paper and Cardboard**  
**03 01 wastes from wood processing and the production of panels and furniture**  
 03 01 01 waste bark and cork  
 03 01 05 sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  
**03 03 wastes from pulp, paper and cardboard production and processing**  
 03 03 01 waste bark and wood  
 03 03 02 green liquor sludge (from recovery of cooking liquor)  
 03 03 05 de-inking sludges from paper recycling  
 03 03 07 mechanically separated rejects from pulping of waste paper and cardboard  
 03 03 08 wastes from sorting of paper and cardboard destined for recycling  
 03 03 09 lime mud waste  
 03 03 10 fibre rejects, fibre-, filler- and coating-sludges from mechanical separation  
 03 03 11 sludges from on-site effluent treatment other than those mentioned in 03 03 10  
**04 Wastes from the Leather, Fur and Textile Industries**  
**04 02 wastes from the textile industry**  
 04 02 09 wastes from composite materials (impregnated textile, elastomer, plastomer)  
 04 02 10 organic matter from natural products (for example grease, wax)  
 04 02 15 wastes from finishing other than those mentioned in 04 02 14  
 04 02 17 dyestuffs and pigments other than those mentioned in 04 02 16  
 04 02 20 sludges from on-site effluent treatment other than those mentioned in 04 02 19  
 04 02 21 wastes from unprocessed textile fibres  
 04 02 22 wastes from processed textile fibres  
**05 Wastes from Petroleum Refining, Natural Gas Purification and Pyrolytic Treatment of Coal**  
**05 01 wastes from petroleum refining**  
 05 01 10 sludges from on-site effluent treatment other than those mentioned in 05 01 09  
 05 01 13 boiler feedwater sludges  
 05 01 14 wastes from cooling columns  
 05 01 16 sulphur-containing wastes from petroleum desulphurisation  
 05 01 17 bitumen  
**05 06 wastes from the pyrolytic treatment of coal**  
 05 06 04 waste from cooling columns  
**05 07 wastes from natural gas purification and transportation**  
 05 07 02 wastes containing sulphur  
**06 Wastes from Inorganic Chemical Processes**  
**06 03 wastes from the MFSU of salts and their solutions and metallic oxides**  
 06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13  
 06 03 16 metallic oxides other than those mentioned in 06 03 15  
**06 05 sludges from on-site effluent treatment**  
 06 05 03 sludges from on-site effluent treatment other than those mentioned in 06 05 02  
**06 06 wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes**  
 06 06 03 wastes containing sulphides other than those mentioned in 06 06 02

**06 09 wastes from the MFSU of phosphorous chemicals and phosphorous chemical processes**

06 09 02 phosphorous slag

06 09 04 calcium-based reaction wastes other than those mentioned in 06 09 03

**06 11 wastes from the manufacture of inorganic pigments and opacifiers**

06 11 01 calcium-based reaction wastes from titanium dioxide production

**06 13 wastes from inorganic chemical processes not otherwise specified**

06 13 03 carbon black

**07 Wastes from Organic Chemical Processes**

**07 01 wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals**

07 01 12 sludges from on-site effluent treatment other than those mentioned in 07 01 11

**07 02 wastes from the MFSU of plastics, synthetic rubber and man-made fibres**

07 02 12 sludges from on-site effluent treatment other than those mentioned in 07 02 11

07 02 13 waste plastic

07 02 15 wastes from additives other than those mentioned in 07 02 14

07 02 17 wastes containing silicones other than those mentioned in 07 02 16

**07 03 wastes from the MFSU of organic dyes and pigments (except 06 11)**

07 03 12 sludges from on-site effluent treatment other than those mentioned in 07 03 11

**07 04 wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides**

07 04 12 sludges from on-site effluent treatment other than those mentioned in 07 04 11

**07 05 wastes from the MFSU of pharmaceuticals**

07 05 12 sludges from on-site effluent treatment other than those mentioned in 07 05 11

07 05 14 solid wastes other than those mentioned in 07 05 13

**07 06 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics**

07 06 12 sludges from on-site effluent treatment other than those mentioned in 07 06 11

**07 07 wastes from the MFSU of fine chemicals and chemical products not otherwise specified**

07 07 12 sludges from on-site effluent treatment other than those mentioned in 07 07 11

**08 Wastes from Manufacture, Formulation, Supply and Use (MFSU) of Coatings (Paints, Varnishes and Vitreous Enamels), Adhesives, Sealants and Printing Inks**

**08 01 wastes from MFSU and removal of paint and varnish**

08 01 12 waste paint and varnish other than those mentioned in 08 01 11

08 01 14 sludges from paint or varnish other than those mentioned in 08 01 13

08 01 16 aqueous sludges containing paint or varnish other than those mentioned in 08 01 15

**08 02 wastes from MFSU of other coatings (including ceramic materials)**

08 02 01 waste coating powders

08 02 02 aqueous sludges containing ceramic materials

**08 03 wastes from MFSU of printing inks**

08 03 07 aqueous sludges containing ink

08 03 13 waste ink other than those mentioned in 08 03 12

08 03 15 ink sludges other than those mentioned in 08 03 14

08 03 18 waste printing toner other than those mentioned in 08 03 17

**08 04 wastes from MFSU of adhesives and sealants (including waterproofing products)**

08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

08 04 12 adhesive and sealant sludges other than those mentioned in 08 04 11

08 04 14 aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13

**09 Wastes from the Photographic Industry**

**09 01 wastes from the photographic industry**

09 01 07 photographic film and paper containing silver or silver compounds

09 01 08 photographic film and paper free of silver or silver compounds

09 01 10 single-use cameras without batteries

09 01 12 single-use cameras containing batteries other than those mentioned in 09 01 11

**10 Wastes from Thermal Processes**

**10 01 wastes from power stations and other combustion plants (except 19)**

10 01 01 bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)

10 01 02 coal fly ash

10 01 03 fly ash from peat and untreated wood

10 01 05 calcium-based reaction wastes from flue-gas desulphurisation in solid form

10 01 07 calcium-based reaction wastes from flue-gas desulphurisation in sludge form

10 01 15 bottom ash, slag and boiler dust from co-incineration other than those

mentioned in 10 01 14

10 01 17 fly ash from co-incineration other than those mentioned in 10 01 16

10 01 19 wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18

10 01 21 sludges from on-site effluent treatment other than those mentioned in 10 01 20

10 01 23 aqueous sludges from boiler cleansing other than those mentioned in 10 01 22

10 01 24 sands from fluidised beds

10 01 25 wastes from fuel storage and preparation of coal-fired power plants

10 01 26 wastes from cooling-water treatment

**10 02 wastes from the iron and steel industry**

10 02 01 wastes from the processing of slag

10 02 02 unprocessed slag

10 02 08 solid wastes from gas treatment other than those mentioned in 10 02 07

10 02 10 mill scales

10 02 12 wastes from cooling-water treatment other than those mentioned in 10 02 11

10 02 14 sludges and filter cakes from gas treatment other than those mentioned in 10 02 13

10 02 15 other sludges and filter cakes

**10 03 wastes from aluminium thermal metallurgy**

10 03 02 anode scraps

10 03 05 waste alumina

10 03 16 skimmings other than those mentioned in 10 03 15

10 03 18 carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17

10 03 20 flue-gas dust other than those mentioned in 10 03 19

10 03 22 other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21

10 03 24 solid wastes from gas treatment other than those mentioned in 10 03 23

10 03 26 sludges and filter cakes from gas treatment other than those mentioned in 10 03 25

10 03 28 wastes from cooling-water treatment other than those mentioned in 10 03 27

10 03 30 wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29

**10 04 wastes from lead thermal metallurgy**

10 04 10 wastes from cooling-water treatment other than those mentioned in 10 04 09

**10 05 wastes from zinc thermal metallurgy**

10 05 01 slags from primary and secondary production

10 05 04 other particulates and dust

10 05 09 wastes from cooling-water treatment other than those mentioned in 10 05 08

10 05 11 dross and skimmings other than those mentioned in 10 05 10

**10 06 wastes from copper thermal metallurgy**

10 06 01 slags from primary and secondary production

10 06 02 dross and skimmings from primary and secondary production

10 06 04 other particulates and dust

10 06 10 wastes from cooling-water treatment other than those mentioned in 10 06 09

**10 07 wastes from silver, gold and platinum thermal metallurgy**

10 07 01 slags from primary and secondary production

10 07 02 dross and skimmings from primary and secondary production

10 07 03 solid wastes from gas treatment

10 07 04 other particulates and dust

10 07 05 sludges and filter cakes from gas treatment

10 07 08 wastes from cooling-water treatment other than those mentioned in 10 07 07

**10 08 wastes from other non-ferrous thermal metallurgy**

10 08 04 particulates and dust

10 08 09 other slags

10 08 11 dross and skimmings other than those mentioned in 10 08 10

10 08 13 carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12

10 08 14 anode scrap

10 08 16 flue-gas dust other than those mentioned in 10 08 15

10 08 18 sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17

10 08 20 wastes from cooling-water treatment other than those mentioned in 10 08 19

**10 09 wastes from casting of ferrous pieces**

10 09 03 furnace slag



10 09 06 casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05

10 09 08 casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07

10 09 10 flue-gas dust other than those mentioned in 10 09 09

10 09 12 other particulates other than those mentioned in 10 09 11

10 09 14 waste binders other than those mentioned in 10 09 13

10 09 16 waste crack-indicating agent other than those mentioned in 10 09 15

**10 10 wastes from casting of non-ferrous pieces**

10 10 03 furnace slag

10 10 06 casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05

10 10 08 casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07

10 10 10 flue-gas dust other than those mentioned in 10 10 09

10 10 12 other particulates other than those mentioned in 10 10 11

10 10 14 waste binders other than those mentioned in 10 10 13

10 10 16 waste crack-indicating agent other than those mentioned in 10 10 15

**10 11 wastes from manufacture of glass and glass products**

10 11 03 waste glass-based fibrous materials

10 11 05 particulates and dust

10 11 10 waste preparation mixture before thermal processing, other than those mentioned in 10 11 09

10 11 12 waste glass other than those mentioned in 10 11 11

10 11 14 glass-polishing and -grinding sludge other than those mentioned in 10 11 13

10 11 16 solid wastes from flue-gas treatment other than those mentioned in 10 11 15

10 11 18 sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17

10 11 20 solid wastes from on-site effluent treatment other than those mentioned in 10 11 19

**10 12 wastes from manufacture of ceramic goods, bricks, tiles and construction products**

10 12 01 waste preparation mixture before thermal processing

10 12 03 particulates and dust

10 12 05 sludges and filter cakes from gas treatment

10 12 06 discarded moulds

10 12 08 waste ceramics, bricks, tiles and construction products (after thermal processing)

10 12 10 solid wastes from gas treatment other than those mentioned in 10 12 09

10 12 12 wastes from glazing other than those mentioned in 10 12 11

10 12 13 sludge from on-site effluent treatment

**10 13 wastes from manufacture of cement, lime and plaster and articles and products made from them**

10 13 01 waste preparation mixture before thermal processing

10 13 04 wastes from calcination and hydration of lime

10 13 06 particulates and dust (except 10 13 12 and 10 13 13)

10 13 10 wastes from asbestos-cement manufacture other than those mentioned in 10 13 09

10 13 11 wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10

10 13 13 solid wastes from gas treatment other than those mentioned in 10 13 12

10 13 14 waste concrete and concrete sludge

**11 Wastes from Chemical Surface Treatment and Coating of Metals and other Materials; Non-Ferrous Hydro-Metallurgy**

**11 01 wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)**

11 01 10 sludges and filter cakes other than those mentioned in 11 01 09

11 01 14 degreasing wastes other than those mentioned in 11 01 13

**11 02 wastes from non-ferrous hydrometallurgical processes**

11 02 03 wastes from the production of anodes for aqueous electrolytical processes

11 02 06 wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05

**11 05 wastes from hot galvanising processes**

11 05 01 hard zinc

11 05 02 zinc ash

**12 Wastes from Shaping and Physical and Mechanical Surface Treatment of**

**Metals and Plastics****12 01 wastes from shaping and physical and mechanical surface treatment of metals and plastics**

- 12 01 01 ferrous metal filings and turnings
- 12 01 02 ferrous metal dust and particles
- 12 01 03 non-ferrous metal filings and turnings
- 12 01 04 non-ferrous metal dust and particles
- 12 01 05 plastics shavings and turnings
- 12 01 13 welding wastes
- 12 01 15 machining sludges other than those mentioned in 12 01 14
- 12 01 17 waste blasting material other than those mentioned in 12 01 16
- 12 01 21 spent grinding bodies and grinding materials other than those mentioned in 12 01 20

**15 Waste Packaging; Absorbents, Wiping Cloths, Filter Materials and Protective Clothing not otherwise specified****15 01 packaging (including separately collected municipal packaging waste)**

- 15 01 01 paper and cardboard packaging
- 15 01 02 plastic packaging
- 15 01 03 wooden packaging
- 15 01 04 metallic packaging
- 15 01 05 composite packaging
- 15 01 06 mixed packaging
- 15 01 07 glass packaging
- 15 01 09 textile packaging

**15 02 absorbents, filter materials, wiping cloths and protective clothing**

- 15 02 03 absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02

**16 Wastes not otherwise specified in the list****16 01 end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)**

- 16 01 03 end-of-life tyres
- 16 05 05 gases in pressure containers other than those mentioned in 16 05 04
- 16 01 06 end-of-life vehicles, containing neither liquids nor other hazardous components
- 16 01 12 brake pads other than those mentioned in 16 01 11
- 16 01 16 tanks for liquefied gas
- 16 01 17 ferrous metal
- 16 01 18 non-ferrous metal
- 16 01 19 plastic
- 16 01 20 glass
- 16 01 22 components not otherwise specified

**16 02 wastes from electrical and electronic equipment**

- 16 02 14 discarded equipment other than those mentioned in 16 02 09 to 16 02 13
- 16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15

**16 03 off-specification batches and unused products**

- 16 03 04 inorganic wastes other than those mentioned in 16 03 03
- 16 03 06 organic wastes other than those mentioned in 16 03 05

**16 05 gases in pressure containers and discarded chemicals**

- 16 05 05 gases in pressure containers other than those mentioned in 16 05 04
- 16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

**16 06 batteries and accumulators**

- 16 06 04 alkaline batteries (except 16 06 03)
- 16 06 05 other batteries and accumulators

**16 08 spent catalysts**

- 16 08 01 spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
- 16 08 03 spent catalysts containing transition metals or transition metal compounds not otherwise specified

**16 11 waste linings and refractories**

- 16 11 02 carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
- 16 11 04 other linings and refractories from metallurgical processes other than those mentioned in 16 11 03

16 11 06 linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05

**17 Construction and Demolition Wastes (including excavated soil from contaminated sites)**

**17 01 concrete, bricks, tiles and ceramics**

17 01 01 concrete

17 01 02 bricks

17 01 03 tiles and ceramics

17 01 07 mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06

**17 02 wood, glass and plastic**

17 02 01 wood

17 02 02 glass

17 02 03 plastic

**17 03 bituminous mixtures, coal tar and tarred products**

17 03 02 bituminous mixtures other than those mentioned in 17 03 01

**17 04 metals (including their alloys)**

17 04 01 copper, bronze, brass

17 04 02 aluminium

17 04 03 lead

17 04 04 zinc

17 04 05 iron and steel

17 04 06 tin

17 04 07 mixed metals

17 04 11 cables other than those mentioned in 17 04 10

**17 05 soil (including excavated soil from contaminated sites), stones and dredging spoil**

17 05 04 soil and stones other than those mentioned in 17 05 03

17 05 06 dredging spoil other than those mentioned in 17 05 05

17 05 08 track ballast other than those mentioned in 17 05 07

**17 06 insulation materials and asbestos-containing construction materials**

17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03

**17 09 other construction and demolition wastes**

17 09 04 mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

**18 Wastes from Human and Animal Health Care and/or Related Research (except kitchen and restaurant wastes not arising from immediate health care)**

**18 01 wastes from natal care, diagnosis, treatment or prevention of disease in humans**

18 01 01 sharps (except 18 01 03)

18 01 04 wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)

18 01 07 chemicals other than those mentioned in 18 01 06

18 01 09 medicines other than those mentioned in 18 01 08

**18 02 wastes from research, diagnosis, treatment or prevention of disease involving animals**

18 02 01 sharps (except 18 02 02)

18 02 03 wastes whose collection and disposal is not subject to special requirements in order to prevent infection

18 02 06 chemicals other than those mentioned in 18 02 05

18 02 08 medicines other than those mentioned in 18 02 07

**19 Wastes from Waste Management Facilities, Off-site Waste Water Treatment Plants and the Preparation of Water Intended for Human Consumption and Water for Industrial Use**

**19 01 wastes from incineration or pyrolysis of waste**

19 01 02 ferrous materials removed from bottom ash

19 01 12 bottom ash and slag other than those mentioned in 19 01 11

19 01 14 fly ash other than those mentioned in 19 01 13

19 01 16 boiler dust other than those mentioned in 19 01 15

19 01 18 pyrolysis wastes other than those mentioned in 19 01 17

19 01 19 sands from fluidised beds

**19 02 wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**

19 02 03 premixed wastes composed only of non-hazardous wastes

19 02 06 sludges from physico/chemical treatment other than those mentioned in 19 02 05

19 02 10 combustible wastes other than those mentioned in 19 02 08 and 19 02 09

**19 03 stabilised/solidified wastes**

19 03 05 stabilised wastes other than those mentioned in 19 03 04

19 03 07 solidified wastes other than those mentioned in 19 03 06

**19 04 vitrified waste and wastes from vitrification**

19 04 01 vitrified waste

**19 05 wastes from aerobic treatment of solid wastes**

19 05 01 non-composted fraction of municipal and similar wastes

19 05 02 non-composted fraction of animal and vegetable waste

19 05 03 off-specification compost

**19 06 wastes from anaerobic treatment of waste**

19 06 04 digestate from anaerobic treatment of municipal waste

19 06 06 digestate from anaerobic treatment of animal and vegetable waste

**19 07 landfill leachate**

19 07 02\* landfill leachate containing dangerous substances M

19 07 03 landfill leachate other than those mentioned in 19 07 02

**19 08 wastes from waste water treatment plants not otherwise specified**

19 08 01 screenings

19 08 02 waste from desanding

19 08 05 sludges from treatment of urban waste water

19 08 09 grease and oil mixture from oil/water separation containing only edible oil and fats

19 08 12 sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11

19 08 14 sludges from other treatment of industrial waste water other than those mentioned in 19 08 13

**19 09 wastes from the preparation of water intended for human consumption or water for industrial use**

19 09 01 solid waste from primary filtration and screenings

19 09 02 sludges from water clarification

19 09 03 sludges from decarbonation

19 09 04 spent activated carbon

19 09 05 saturated or spent ion exchange resins

19 09 06 solutions and sludges from regeneration of ion exchangers

**19 10 wastes from shredding of metal-containing wastes**

19 10 01 iron and steel waste

19 10 02 non-ferrous waste

19 10 04 fluff-light fraction and dust other than those mentioned in 19 10 03

19 10 06 other fractions other than those mentioned in 19 10 05

**19 11 wastes from oil regeneration**

19 11 06 sludges from on-site effluent treatment other than those mentioned in 19 11 05

**19 12 wastes from the mechanical treatment of waste**

**(for example sorting, crushing, compacting, pelletising) not otherwise specified**

19 12 01 paper and cardboard

19 12 02 ferrous metal

19 12 03 non-ferrous metal

19 12 04 plastic and rubber

19 12 05 glass

19 12 07 wood other than that mentioned in 19 12 06

19 12 08 textiles

19 12 09 minerals (for example sand, stones)

19 12 10 combustible waste (refuse derived fuel)

19 12 12 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

**19 13 wastes from soil and groundwater remediation**

19 13 02 solid wastes from soil remediation other than those mentioned in 19 13 01

19 13 04 sludges from soil remediation other than those mentioned in 19 13 03

19 13 06 sludges from groundwater remediation other than those mentioned in 19 13 05

**20 Municipal Wastes (Household waste and similar commercial, industrial and institutional wastes) Including separately collected fractions**

**20 01 separately collected fractions (except 15 01)**

20 01 01 paper and cardboard

20 01 02 glass

20 01 08 biodegradable kitchen and canteen waste

20 01 10 clothes

20 01 11 textiles  
 20 01 25 edible oil and fat  
 20 01 28 paint, inks, adhesives and resins other than those mentioned in 20 01 27  
 20 01 30 detergents other than those mentioned in 20 01 29  
 20 01 32 medicines other than those mentioned in 20 01 31  
 20 01 34 batteries and accumulators other than those mentioned in 20 01 33  
 20 01 36 discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35  
 20 01 38 wood other than that mentioned in 20 01 37  
 20 01 39 plastics  
 20 01 40 metals  
 20 01 41 wastes from chimney sweeping  
**20 02 garden and park wastes (including cemetery waste)**  
 20 02 01 biodegradable waste  
 20 02 02 soil and stones  
 20 02 03 other non-biodegradable wastes  
**20 03 other municipal wastes**  
 20 03 01 mixed municipal waste  
 20 03 02 waste from markets  
 20 03 03 street-cleaning residues  
 20 03 04 septic tank sludge  
 20 03 06 waste from sewage cleaning  
 20 03 07 bulky waste

Schedule 4 – Emissions and monitoring:

## Schedule 4 – Emissions and monitoring

**Table S4.1 Leachate level limits and monitoring requirements**

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
Leachate monitoring points shown on drawing reference 2425/2/021	1m	weekly	In accordance with the application

**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
A1 Cell perimeter	NO <sub>x</sub>	Mobile landfill gas flare	150 mg/m <sup>3</sup>	Hourly mean	Annually	ISO 10849
	CO		50 mg/m <sup>3</sup>			ISO 12039
	Total VOCs		10 mg/m <sup>3</sup>			BSEN 12619 BSEN 13526
	Non-methane VOCs		5 mg/m <sup>3</sup>			BSEN 13649
A2 NGR SJ 330776 345861 As shown on Figure 15	NO <sub>x</sub>	Fixed landfill gas flare	150 mg/m <sup>3</sup>	Hourly mean	Annually	ISO 10849
	CO		50 mg/m <sup>3</sup>			ISO 12039
	Total VOCs		10 mg/m <sup>3</sup>			BSEN 12619 BSEN 13526
	Non-methane VOCs		5 mg/m <sup>3</sup>			BSEN 13649

Footnote: Annual monitoring is only required when flares operate in excess of 10% of the time, taken on an annual assessment period.

**Table S4.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements**

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
SW1A , SW2 NGR SJ 3079 4593 and SJ 3117 4565 as shown on Figure 25	Visible oil	Site drainage from the surface water management system	None visible	Spot sample	Daily	In accordance with the application
SW1A , SW2 NGR SJ 3079 4593 and SJ 3117 4565 as shown on Figure 25	Suspended solids	Site drainage from the surface water management system	50 mg/l	Spot sample	Monthly	In accordance with the application
	Ammoniacal nitrogen		1.6 mg/l			
	COD		67.9 mg/l			
	Chloride		62.8 mg/l			
	Electrical conductivity		900 uS/cm			
SW1A , SW2 NGR SJ 3079 4593 and SJ 3117 4565 as shown on Figure 25	Alkalinity	Site drainage from the surface water management system	323 mg/l	Spot sample	Quarterly	In accordance with the application
	BOD		14 mg/l			
	Cadmium		0.01 mg/l			
	Calcium		185 mg/l			
	Chromium		0.02 mg/l			
	Copper		0.13 mg/l			
	Iron		0.17 mg/l			
	Lead		0.06 mg/l			
	Magnesium		31.9 mg/l			
	Manganese		0.86 mg/l			
	Nickel		0.02 mg/l			
	Potassium		10 mg/l			
	Sodium		56.8 mg/l			
	Sulphate		224.3 mg/l			
	TON		2.9 mg/l			
	TDS		822 mg/l			
	TOC		4.8 mg/l			
	zinc		0.064 mg/l			

**Table S4.4 Trigger levels for emissions into groundwater and monitoring requirements**

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
HA01A(T), HA09A(T), HA11B(T), HA12A(T), HA12A(M), HA01B(B), HA09A(B), HA11A(B), HA12B(B)	Ammoniacal nitrogen	2 mg/l	Spot sample	Monthly	In accordance with the application or otherwise as agreed with the Agency in writing.
	Chromium	0.05 mg/l		Quarterly	
	Copper	1 mg/l		Quarterly	
	Zinc	1 mg/l		Quarterly	
HA01B(M), HA09B(M)	Ammoniacal nitrogen	4 mg/l	Spot sample	Monthly	
	Chloride	200 mg/l		Monthly	
	Chromium	0.05 mg/l		Quarterly	
	Copper	1 mg/l		Quarterly	
	Lead	0.042 mg/l		Quarterly	
	Nickel	0.05 mg/l		Quarterly	
	Zinc	1 mg/l		Quarterly	
HA11B(M)	Ammoniacal nitrogen	4 mg/l	Spot sample	Monthly	In accordance with the application or otherwise as agreed with the Agency in writing.
	Chloride	200 mg/l		Monthly	
	Chromium	0.05 mg/l		Quarterly	
	Copper	1 mg/l		Quarterly	
	Zinc	1 mg/l		Quarterly	
HA12A(T), HA12A(M), HA12B(B)	Chloride	350 mg/l	Spot sample	Monthly	
HA01A(T), HA09A(T), HA11B(T), HA01B(B), HA09A(B), HA11A(B)	Chloride	200 mg/l	Spot sample	Monthly	
HA01A(T), HA12A(T), HA12A(M), HA01B(B), HA09A(B), HA11A(B), HA12B(B)	Lead	0.042 mg/l	Spot sample	Quarterly	
	Nickel	0.05 mg/l		Quarterly	
HA09A(T), HA11B(T), HA11B(M)	Lead	0.15 mg/l	Spot sample	Quarterly	
HA09A(T)	Nickel	0.2 mg/l	Spot sample	Quarterly	
HA11B(T)		0.15 mg/l		Quarterly	
HA11B(M)		0.1 mg/l		Quarterly	

**Table S4.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements**

Monitoring point Ref. /description	Parameter	Limit (including units) *	Monitoring frequency	Monitoring standard or method
HA06A(M), HA06A(B), HA06B(T), HA09A(T), HA09A(B), HA09B(M) (Boreholes shown on drawing reference MWH4557/2/01 Rev B)	Methane	1% vol	weekly	Differential pressure will be monitored only when limit is breached.
	carbon dioxide	1.5% vol		
	oxygen, differential pressure and meteorological data	None specified		Monitoring in accordance with the application.
HA01A(T), HA01B(M), HA01B(B), HA02A(T), HA02A(M), HA02B(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 (Boreholes shown on drawing reference MWH4557/2/01 Rev B)	Methane	1% vol	monthly	Differential pressure will be monitored only when limit is breached.
	carbon dioxide	1.5% vol		
	oxygen, differential pressure and meteorological data	None specified		Monitoring in accordance with the application.

\* - The limits specified take account of the agreed background concentrations as detailed in the application

**Table S4.6 Landfill gas from capped surfaces - monitoring requirements**

Monitoring point Ref. /description	Parameter	Monitoring frequency	Other specifications	Monitoring Standard or method
Permanently capped zone	Average Methane flux	Annually	Where a rate of 0.001 mg/m <sup>2</sup> /second is exceeded appropriate measures must be taken to reduce the rate.	Flame ionisation detector walkover, flux box or as otherwise agreed in writing by the Agency*.
Temporarily capped zone	Average Methane flux	Annually	Where a rate of 0.1 mg/m <sup>2</sup> /second is exceeded appropriate measures must be taken to reduce the rate.	Flame ionisation detector walkover, flux box or as otherwise agreed in writing by the Agency*.

Footnote \* If a cap has previously been shown compliant and there have been no significant physical changes in the gas management during the year, a detailed walkover survey with an FID can be used to demonstrate that the surface emissions are under control. If this survey shows no change in the pattern of methane emission, it may be used as the annual survey. The values for flux and total methane emissions measured in the previous year may be reported and a fresh flux box survey is not necessary. If the zone remains stable, the results of a full walkover survey may be accepted as the site report for a period of four years before a further quantitative flux box survey is required.



**Table S4.7 Landfill gas – other monitoring requirements**

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Leachate monitoring points Shown on drawing reference 2425/2/021	Methane, carbon dioxide, oxygen, temperature, atmospheric pressure	Monthly	In accordance with the application	None
Active gas extraction wells Shown on drawing reference 2425/2/023	Methane, carbon dioxide, oxygen, temperature, flow rate, atmospheric pressure, differential pressure	Monthly	In accordance with the application	None
Representative sample	Trace gases	Annually	In accordance with LFTGN04 Guidance for monitoring trace components in landfill gas, Environment Agency, September 2004	None

**Table S4.8 Leachate– other monitoring requirements**

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Leachate monitoring points shown on drawing reference 2425/2/021	pH, temperature, electrical conductivity	Monthly	In accordance with the application	None
Leachate monitoring points shown on drawing reference 2425/2/021	Chloride, ammoniacal nitrogen, sulphate, total alkalinity, sodium, potassium, calcium, magnesium, COD, BOD, TON, TOC	Quarterly	In accordance with the application	None
Leachate monitoring points shown on drawing reference 2425/2/021	Manganese, iron, cadmium, chromium, copper, nickel, lead, zinc, mercury, suspended solids, total dissolved solids, PAH, TPH,	Annually	In accordance with the application	None
Representative sample from each cell	List 1 suite	Annually	In accordance with Appendix 6 of LFTGN01 Hydrogeological Risk Assessments for Landfills, Environment Agency, March 2003	None

**Table S4.9 Surface water – other monitoring requirements**

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
SW1, SW1A, SW2, SW3, SW4	pH, temperature, electrical conductivity, dissolved oxygen, ammoniacal nitrogen, chloride, COD, suspended solids, turbidity	Monthly	In accordance with the application	None
SW1, SW1A, SW2, SW3, SW4	Sulphate, total alkalinity, TON, TOC, sodium, potassium, calcium, magnesium, iron, manganese, cadmium, chromium, copper, nickel, lead, zinc, mercury, phenols, ionic balance	Quarterly	In accordance with the application	None

**Table S4.10 Groundwater – other monitoring requirements**

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Drift HA01A(T), HA02A(T), HA02A(M), HA04A(T), HA04A(M), HA05(T), HA06A(M), HA06B(T), HA09A(T), HA11B(T), HA12A(T), HA12A(M)	Water level, pH, temperature, electrical conductivity, dissolved oxygen, ammoniacal nitrogen, chloride	Monthly	In accordance with the application	None
Upper Ruabon Marl HA01B(B), HA02B(B), HA04B(B), HA05(B), HA06A(B), HA09A(B), HA11A(B), HA12B(B) URM Limestone HA01B(M), HA09B(M), HA11B(M)	Suspended solids, TDS, alkalinity, TON, COD, TOC, sulphate, sodium, potassium, calcium, magnesium, iron, manganese, cadmium, chromium, copper, nickel, lead, zinc, mercury, phenols, ionic balance, PAH, TPH	Quarterly	In accordance with the application	None

**Table S4.11 Particulate matter in ambient air - limits and monitoring requirements**

Monitoring Point Ref. /Description	Parameter	Limit (Including Unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
NW boundary as described in section 2.10.8 of consolidated application	Deposited dust	200 mg/m <sup>2</sup> /day	Monthly average	Monthly	In accordance with the application or otherwise as agreed with the Agency in writing.
SE boundary as described in section 2.10.8 of consolidated application	Deposited dust	200 mg/m <sup>2</sup> /day	Monthly average	Monthly	In accordance with the application or otherwise as agreed with the Agency in writing.

### **SCHEDULE 3 – CONDITIONS TO BE ADDED**

3. None.