Notice of variation with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Biffa Waste Services Limited

Redhill Landfill Site (North East Quadrant)
Cormongers Lane
Nutfield
Redhill
Surrey
RH1 4ER

Variation application number

EPR/BU8126IY/V009

Permit number

EPR/BU8126IY

Redhill Landfill Site (North East Quadrant)
Permit number EPR/BU8126IY

Introductory note

This introductory note does not form a part of the notice

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

This variation incorporates the following operational changes into the permit:

- increase the annual throughput limit at the Soil Treatment Facility from 75,000 tonnes per year to 79,999 tonnes per year;
- increase site boundary to construct additional treatment pad;
- include a number of additional waste codes to the list of permitted waste for treatment in the Soil Treatment Facility: 17 02 01, 19 05 03, 19 12 07, 20 01 38, 20 02 01.

The schedules specify the changes made to the original permit.

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 BU8126 (EPR/BU8126IY/A001) received	09/06/03	Application for the North East Quadrant part of the installation.
Response to request for information regarding commercial confidentiality	Request dated 19/06/03	18/07/03
Response to request for information regarding technical information – North East Quadrant	Request dated 14/10/03	01/11/03
Permit BU8126 (EPR/BU8126IY) determined	03/03/04	
Planning Inspectors decision	08/02/06	
Variation notice EPR/BU8126IY/V002 (reference KP3534LQ) determined	12/10/06	
Variation application EPR/BU8126IY/V003 (reference AP3838UC)	Duly made 27/04/07	
Response to request for information Schedule 7 Notice dated 23/11/07	18/01/08	
Variation determined EPR/BU8126IY (reference AP3838UC)	07/04/08	
Variation determined EPR/BU8126IY/V004 (reference YP3639UH)	04/12/08	
Variation determined EPR/BU8126IY/V005 (reference AP3338US)	31/03/09	
Variation determined EPR/BU8126IY/V006 (reference AP3132HY)	15/07/10	
Variation application EPR/BU8126IY/V007 (reference RP3832HM)	Duly made 22/06/11	
Variation determined EPR/BU8126IY (reference RP3832HM)	28/11/11	
Variation application EPR/BU8126IY/V008 (reference TP3936FN)	Duly made 03/10/11	
Variation determined EPR/BU8126IY (reference TP3939FN)	06/02/12	
Variation application EPR/BU8126IY/V009 (reference KP3236CC)	Duly made 30/05/12	
Variation determined EPR/BU8126IY (reference KP3236CC)	22/08/12	

End of introductory note

Notice of variation

Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies

Permit number
EPR/BU8126IY

issued to:
Biffa Waste Services Limited ("the operator")

whose registered office is

Coronation Road
Cressex
High Wycombe
Bucks
HP12 3TZ

company registration number **00946107**

to operate a regulated facility at

Redhill Landfill Site (North East Quadrant)
Cormongers Lane
Nutfield
Redhill
Surrey
RH1 4ER

to the extent set out in the schedules.

The notice shall take effect from 22/08/12.

Name	Date
Brenda Graham	**22/08/2012**

Authorised on behalf of the Environment Agency

Schedule 1 – conditions to be deleted

None

Schedule 2 – conditions to be amended

The following conditions are amended as a result of the application made by the operator:

- Table S1.2 as referenced by Condition 2.3.1 is amended to include the operating techniques described in variation application EPR/BU8126IY/V009. The amended table reads as follows;

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the Application Forms for 'Patteson Court, North East Quadrant'. The technical details and standards contained within these documents shall apply to the NEQ, save that the Operator shall install on the sides of the engineered containment a leachate drainage layer of not less than 300mm thickness measured perpendicular to the surface of those sides.	09/06/2003
	The revised Patteson Court Southwest Area Landfill Risk Assessment report by Environmental Simulations International Ltd, dated December 2003, received under cover of letter from applicant dated 12 December 2003.	12/12/2003
	The information contained within letters from the applicant dated 26 September 2003, 11 November 2003 and 12 December 2003, which should be considered as part of the Applications	26/09/2003, 11/11/2003 and 12/12/2003
Variation application	The response to questions C2.1, C2.2, C2.3, C2.4 , C2.5 and C2.6 of the variation application for Redhill Landfill Site (NEQ) Permit Ref: KP3534LQ received under cover letter of applicant dated 30 March 2007.	02/04/2007
Schedule 7 Notice	Response to schedule 7 Notice dated 23 November 2007.	18/01/2008
Operations	Gas Management Plan & Control specification, edition IV, dated November 2007.	11/2007
	Redhill Landfill Site Odour Management Plan 2011 Approved September 2011.	01/2008
	Surface Water Management Plan	
	Asbestos Management Plan	
	Particulate Monitoring and Management Plan	08/2009
	Odour Management Plan	11/2011
Variation Application	The response to questions C2.1, C2.4, C2.7, C2.9 and associated drawings showing revised pre-settlement contours, contained in Variation application for Redhill Landfill Site North East Quadrant permit reference BU8126IY. Revised engineering drawing details for interface between the North East Quadrant and the South West Area comprising: • Drawing 1 – Interface lining system formation surface – Optimised layout, dated May 2008 • Drawing 2 – Details and cross sections, dated April 2008	03/03/2007 07/07/2008
Variation Application EPR/BU8126IY/V007	All	22/06/2011

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Response to Schedule 5 Notice Request for additional information (request dated 03/10/2011)	All	20/10/2011
Variation Application EPR/BU8126IY/V008	Non Technical Summary	09/09/2011
Response to Schedule 5 Notice	Landfill Gas Emissions Assessment and Monitoring	09/11/2011
Variation application EPR/BU8126IY/V009	▪ Part C2 Section 5c - Non Technical Summary ▪ Part C3 Section 3a – Technical standards	30/05/2012
Response to Schedule 5 Notice dated 22/06/2012	All	29/06/2012
Further information received	▪ details of the air extraction from the biopiles ▪ waste codes ▪ details referring to accepting green wastes	19/07/12
Further information received	▪ VOCs monitoring ▪ details of off spec compost accepted on site ▪ acceptance and storage procedures	03/08/12

- Table S1.3 as referenced by Condition 2.5.1 has been amended to add new Improvement Conditions IC10, IC11 and IC12.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IP1 (i)	The Operator shall monitor the composition of the groundwater discharged from the monitoring point WR3016 Quarry Discharge on 3 separate occasions and carry out analysis for the substances in Table 3-4 Summary of Groundwater Quality Data and in Table 3-6 for Surface water monitoring (from ESI report "Redhill Landfill (North East Quadrant) Four Year Review, August 2007, ref. 6876R3).	Completed
IP1 (ii)	Following on from IP1 (i). the Operator shall provide for the approval of the Agency a report, in writing, of the monitoring method, acquired data and fully justified temporary trigger substances and concentrations for the monitoring point WR3016. Arsenic, Sulphate and Benzene shall be considered as additional trigger substances to ammoniacal-N, Cl, Ni, K, Cd, mecoprop and tributyltin. On approval by the Agency, the temporary triggers at WR3016 shall apply until either superseded by more accurate triggers resulting from improvement condition IP2, or normal and natural groundwater flow conditions resume after dewatering stops.	Completed
IP2 (i)	The Operator shall monitor the composition of the groundwater discharged from the monitoring point WR3016 Quarry Discharge at least once every month for 12 months and carry out analysis for the substances in Table 3-4 Summary of Groundwater Quality Data (from ESI report "Redhill Landfill (North East Quadrant) Four Year Review, August 2007, ref. 6876R3).	Completed
IP2 (ii)	Following on from IP2 (i), the Operator shall provide for the approval of the Agency a report, in writing of the monitoring method, acquired data and fully justified revised trigger substances and concentrations for the monitoring point WR3016. Arsenic, Sulphate and Benzene shall be considered as additional trigger substances to ammoniacal-N, Cl, Ni, K, Cd, mecoprop and tributyltin. On approval by the Agency, the triggers at WR3016 shall apply until either superceded by more accurate triggers resulting from groundwater review (IP3), or normal and natural groundwater flow conditions resume after dewatering stops.	Completed
IP3 (i)	The Operator shall submit in writing proposals for additional groundwater monitoring boreholes along the eastern boundary to separately monitor groundwater in the Folkestone, Sandgate and Hythe Beds aquifer units to characterise the groundwater composition and monitor groundwater levels. They shall be located adjacent borehole G90/51. Proposed locations and specific borehole design shall be provided.	Completed
IP3 (ii)	On approval by the Agency the Operator shall construct the two additional boreholes and submit a validation report together with a plan showing the final location and nomenclature of the boreholes.	Completed
IP3 (iii)	The Operator shall monitor the composition of the groundwater of the additional boreholes at least once every month for 12 months and carry out analysis for the substances in Table 3-4 Summary of Groundwater Quality Data (from ESI report "Redhill Landfill (North East Quadrant) Four Year Review, August 2007, ref. 6876R3).	Completed

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IP3 (iv)	The Operator shall submit for the approval of the Agency a fully justified review, in writing, of proposed trigger substances for the period after dewatering has stopped and normal and natural groundwater flow conditions have been resumed. All existing relevant data from boreholes that are up gradient boreholes along the eastern boundary (H90/4, H98/GWB/20.0, H98/GWA/18.8, H98/GWA/64, H90/6D & H90/8, H90/6S, and the new additional boreholes) shall be used including groundwater compositional and level data and leachate quality data to derive suitable triggers for boreholes that are down gradient boreholes along the west boundary (H90/4, H98/GWB/20.0. H98/GWB/23.0, H98/GWC/30, H98/GWC/85, H0501A, H0501B, H0502A, H0502B, H0503A, H0503B, H0504A, H0504B, H0505A, H0505B, H0506A, H0506B, H0507A, H0507B, H0508A, H0508B, H0509A and H0509B). Arsenic, Sulphate and Benzene shall be considered as additional trigger substances to ammoniacal-N, Cl, Ni, K, Cd, mecoprop and tributyltin. On approval by the Agency the triggers shall only be effective commencing when normal and natural flow conditions have resumed after dewatering has stopped.	3 months prior to cessation of dewatering / turning off pumps.
IP4	A revised landfill gas management plan for the site should be prepared and submitted to the Agency for approval. The plan shall incorporate proposals for: • monitoring surface gas emissions; • establishing a network of perimeter and sensitive receptor monitoring point locations giving details of the equipment used, procedures adopted and recognised measurement techniques (including duration) to be undertaken; • installation and maintenance of flank lining; • operation and maintenance of activated carbon towers; • a sign off sheet for gas capture installations; • locations and installation for measurement of the flow rate of landfill gas • assessment levels for methane and carbon dioxide for Chilmead Farm, and boreholes G90/51, G90/55, G90/58 and G90/62; include, but not be limited to, documented system (including procedures and work instructions) for the implementation of monitoring measures, frequencies, schedules, techniques, compliance action plans, data management and reporting procedures. The procedures shall be incorporated in the site working procedures once approved.	Completed

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IP5	The Operator shall prepare and submit to the Agency a revised site-specific assessment and monitoring programme for their fugitive and point-source landfill gas emissions and releases with the potential to adversely impact upon air quality beyond the installation boundary. The monitoring programme shall address the following: • Gather FID spot measurements in order to establish actual background Methane and Hydrogen Sulphide levels over twelve consecutive months to account for predictable seasonal variations over a period of one year; • Clarify the contribution to ambient air levels associated with the installation and discount the potential influence of any confounding factors linked to background concentrations within the locality; and • Within two months of the data gathering being concluded derive suitable assessment and trigger levels. Where necessary propose a realistic timetable (for subsequent agreement with the Agency) capable of delivering a programmed reduction in Methane emissions to the agreed level as measured from the installation boundary.	Completed
IP6	Provide for the approval of the Agency a revised impact assessment report incorporating detailed air dispersion modelling using new generation air dispersion models. The report shall evaluate the potential effect of the emissions of H2S, from all point sources and fugitive emissions from the landfill, including a shut down of gas extraction due to power failure.	Completed
IP7	The Operator shall submit to the Agency a revised infrastructure layout drawing showing location and nomenclatures of engines flare, activated carbon tower/s, abstraction boreholes and manifolds infrastructure.	Completed
IP8	The Operator shall undertake a programme of monitoring in accordance with technical guidance note M18, of the discharge to sewer. The Operator shall sample and analyse the discharge once per month over a period of 6 months. A written report shall be submitted upon completion of the monitoring programme detailing a summary of the analysis, along with an assessment of the impact of the discharge in accordance with the H1 methodology. The report shall also include details of any improvements identified for implementation along with the timescales for completion of the improvements.	Completed
IP9	The Operator shall submit in writing to the Agency a management plan (in accordance with the methods given in Agency guidance ' M17 – Monitoring of particulate matter in ambient air around waste facilities') for the particulate specified in Table S4.12. The plan shall include, but need not be restricted to, monitoring methodologies, identification and assessment of monitoring locations and an action plan that details measures to be taken should an emission limit for particulate specified in Table S4.12 be exceeded.	Completed
IC10	The operator shall review the Particulate Monitoring Action Plan for the site, including the Soil Treatment Facility. The review is to include but not be limited to the following: • Address the potential for additional dust to be produced by the placement of the additional biopiles and treatment pad, • Include measures to be undertaken should the review identify an increase in risk from dust emissions. The copy of the reviewed plan shall be submitted to the Environment Agency for written approval.	22/11/2012

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC11	The Operator shall update the gas management plan for the site. The updated management plan is to include but not be limited to the following: • A monitoring regime to ensure that any gas surface emissions in the vicinity of the pads are detected, • Appropriate action levels for methane with an associated action plan which is to outline steps to be undertaken by the Operator. The updated gas management plan shall be forwarded to the Environment Agency for written approval.	22/11/2012
IC12	The Operator is to undertake an investigation into the potential for increased settlement of the landfill due to the placement of the soil treatment pad and associated infrastructure. The report is to include an investigation into the current state of landfill gas infrastructure beneath the soil treatment pads, associated infrastructure and any areas disturbed by the laying of the soil treatment pad. The investigation is to include a programme of works and improvements that are to be undertaken if it is found that the installation of the soil treatment pads and associated infrastructure are likely to cause additional settlement of the landfill, cracking of the cap or disruption to the gas infrastructure. The settlement investigation shall be forwarded to the Environment Agency for written approval. Upon written approval of the settlement investigation, the Operator is to immediately undertake any works as identified in the report and to the timescales agreed in writing by the Environment Agency.	22/02/2013

- Table S1.5 as referred by Condition 2.8.8 shall be amended to increase the annual waste input limit for the Soil Treatment Facility from 75,000 tonnes/year to 79,999 tonnes/year. The amended table reads as follows;

Table S1.5 Annual waste input limits	
Category	**Limit Tonnes/ Year**
Non-hazardous waste	510,000
Inert waste	120,000
Stable, non-reactive hazardous and asbestos waste	120,000
Hazardous waste (Soil treatment facility)	79,999
Total	754,999

- Table S3.4 as referenced by Condition 2.8.2 is amended to include additional waste codes. The amended table reads as follows;

Table S3.4 Wastes for soil treatment facility (excluding liquid waste)	
EWC Code	**Description**
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 04	**wastes from physical and chemical processing of non metalliferous minerals**
01 04 09	waste sand and clays
01 05	**drilling muds and other drilling wastes**
01 05 04	freshwater drilling muds and wastes
01 05 05 *	oil-containing drilling muds and wastes
01 05 06 *	drilling muds and other drilling wastes containing dangerous substances
05	**WASTES FROM PETROLEUM REFINIGN, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL**
05 01	**wastes from petroleum refining**
05 01 02*	desalter sludges
05 01 03*	tank bottom sludges
05 01 04*	acid alkyl sludges
05 01 05*	oil spills
05 01 06*	oily sludges from maintenance operations of the plant or equipment
05 01 09*	sludges from on-site effluent treatment containing dangerous substances
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 15*	spent filter clays
13	**OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19)**
13 05	**oil/water separator contents**
13 05 01*	solids from grit chambers and oil/water separators
13 05 02*	sludges from oil/water separators
13 05 03*	interceptor sludges
13 05 08*	mixtures of wastes from grit chambers and oil/water separators
16	**WASTE NOT OTHERWISE SPECIFIED IN THE LIST**
16 07	**wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)**
16 07 08*	waste containing oil
16 07 09*	waste containing other dangerous substances
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 02	**wood, glass and plastic**
17 02 01	wood
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 03 *	soil and stones containing dangerous substances
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 05 *	dredging spoil containing dangerous substances
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 07 *	track ballast containing dangerous substances
17 05 08	track ballast other than those mentioned in 17 05 07

Table S3.4 Wastes for soil treatment facility (excluding liquid waste)	
EWC Code	**Description**
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 02	**waste from physio/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 03	premixed waste composed only of non hazardous wastes
19 02 04*	premixed wastes composed of at least one hazardous waste
19 02 05*	sludges from physio/chemical treatment containing dangerous substances
19 02 06	sludges from physio/chemical treatment other than mentioned in 19 02 05
19 02 07*	oil and concentrates from separation
19 03	**stabilised/solidified wastes 1**
19 03 04*	wastes marked as hazardous, partly[1] stabilised
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 06*	wastes marked as hazardous, solidified
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 05	**wastes from aerobic treatment of solid wastes**
19 05 03	off-specification compost
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 01	screenings
19 08 02	waste from desanding
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 07	wood other than that mentioned in 19 12 06
19 13	**wastes from soil and groundwater remediation**
19 13 01 *	solid waste from soil remediation containing dangerous substances
19 13 02	solid waste from soil remediation other than those mentioned in 19 13 01
19 13 03 *	sludges from soil remediation containing dangerous substances
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
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 38	wood other than that mentioned in 20 01 37
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste (woody waste only)
Note 1: A waste is considered as partly stabilised if, after the stabilisation process, dangerous constituents which have not been changed completely into non-dangerous constituents could be released into the environment in the short, middle or long term.	

Schedule 3 – conditions to be added

None.

Schedule 4 – amended plan

Amended plan attached.

REDHILL LANDFILL COMPLEX
Stockpile Area