Notice of variation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Singleton Birch Limited

Melton Ross Lime Works
Melton Ross Quarries
Barnetby
North Lincolnshire
DN38 6AE

Variation application number

EPR/BL8805IZ/V006

Permit number

EPR/BL8805IZ

Melton Ross Lime Works
Permit number EPR/BL8805IZ

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 an Anaerobic Digestion (AD) plant processing non-hazardous waste and agricultural crops. The resultant biogas will feed into five new combined heat and power (CHP) units to generate electricity to be used by the operator for the operation of the lime manufacturing process. Singleton Birch will procure the feedstock from a co-operative of local farmers. This permit allows the acceptance of three new non-hazardous waste codes for processing within the AD facility. During the digestion process 80 percent of the solid matter of the feedstock is converted to either gas or liquid. The operator will utilise the energy at the installation and excesses will be fed back to the national grid. Any liquid and solid digestate produced from the AD will be stored in a covered lagoon and periodically removed by farmers to spread to land for agricultural benefit. There is no change to the permit boundary as a result of this variation.

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 BL8805 (EPR/BL8805IZ/A001)	Duly made 31/08/01	
Permit determined BL8805 (EPR/BL8805IZ)	22/08/02	
Variation application BV0015 (EPR/BL8805IZ/V002)	22/05/03	
Variation determined BV0015 (EPR/BL8805IZ/V002)	05/08/03	
Variation application EPR/BL8805IZ/V003	17/12/09	
Variation determined EPR/BL8805IZ/V003	21/01/10	
Cement and Lime Sector Review Variation determined EPR/BL8805IZ/V004	18/08/10	Variation and consolidation
Variation application EPR/BL8805IZ/V005	Duly made 04/10/11	
Variation issued EPR/BL8805IZ/V005	31/10/11	
Application EPR/BL8805IZ/V006 (variation)	Duly made 21/03/14	Addition of an anaerobic digestion facility and five combined heat and power combustion units for the use of resultant biogas.
Variation determined EPR/BL8805IZ/V006	12/05/14	Varied permit issued.

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/BL8805IZ

issued to:
Singleton Birch Limited ("the operator")

whose registered office is

Melton Ross Quarries
Barnetby
North Lincolnshire
DN38 6AE

company registration number **00009433**

to operate a regulated facility at

Melton Ross Lime Works
Melton Ross Quarries
Barnetby
North Lincolnshire
DN38 6AE

to the extent set out in the schedules.

The notice shall take effect from 12/05/2014.

Name	Date
C G Morris	**12/05/2014**

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 S1.1 as referred to in conditions 2.1.1 and 4.2.2 of the Permit is amended as follows.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
A1	S3.1 A1 (b) (i)	The operation of four parallel flow regenerative lime kilns with a production capacity of more than 50 tonnes per day.	The receipt of raw materials at the kilns to the transfer of lime to the crushing plant.
	Directly Associated Activity		
A2	Raw materials preparation conveying and storage	Crushing and screening of chalk and its storage in hoppers and in emergency stockpile.	Crushing and screening of chalk and its storage in hoppers and in emergency stockpile.
A3	Production of slaked lime	The hydration of lime	The hydration of lime in two hydrators
A4	Production of microlime	The milling of lime and dolomet	The operation of two roller pendulum milling systems
A5	Production of graded lime	The milling, screening and blending of lime (including blending with paper sludge ash)	The operation of a hammer mill, rolls crusher and multi-deck screens
A6	Production of aqualime	Mixing of hydrated lime with water. Mixing of hydrated lime with landfill leachate	Mixing of hydrated lime with water. Mixing of hydrated lime with landfill leachate
A7	Product handling	Hydrate bagging and burnt lime bagging	Hydrate bagging and burnt lime bagging
A8	Product storage and despatch	Storage of product in silos and subsequent loading into mobile tankers	Storage of product in silos and subsequent loading into mobile tankers

	Description of activities for waste operations	***Limits of activities***
A9	A mining waste operation for non-hazardous non-inert wastes	Permitted waste types shall conform to the description in the approved waste management plan.
A10	Anaerobic digestion including the use of resultant biogas R13: Storage of wastes pending the operations numbered R1, R3 and D10 R3: Recycling or reclamation of organic substances that are not used as solvents R1: Use principally as a fuel or other means to generate energy.	Digestion of purpose grown crops Digestion of wastes including pasteurisation and chemical addition. Gas cleaning and upgrading to bio-methane. Gas storage and drying. Treatment of digestate including screening to remove plastic residues, centrifuge or pressing, addition of thickening agents (polymers) or drying. Composting and maturation of digestate. The maximum throughput of animal wastes shall be no more than 10 tonnes per day [excluding manures and slurries]. The total quantity of waste or a combination of waste and non-waste including solids and liquids accepted at the site shall not exceed 100 tonnes in any one day. Burning of biogas in gas engines, gas turbines, boilers and use in fuel cells. Use of an auxiliary flare required only for short periods of breakdown or maintenance of facility. Use of pressure release valves to protect the integrity of the plant. Such systems should not be used routinely to vent unburned biogas.

Table S1.2 as referred to in condition 2.3.1 of the Permit is amended as follows.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to questions B2.3 given in section B2.3 of the application document	31/08/2001
Letter dated 22/08/2002	The addition of milling dolomet (magnesium oxide) in the Microlime plant	22/08/2002
Application for a Standard variation	Document Reference Number LFP 1 of the Application.	22/05/2003
Application for Variation EPR/BL8805IZ/V003	All sections relating to operating techniques for the alcinations of dolomitic limestone	17/12/2009
Application for Variation EPR/BL8805IZ/V005	The response to question 3a of application form C3; Non technical summary; Document detailing the process using paper sludge ash; Waste Management Plan; Response to questions 4c and 4d of application form part C5.	04/10/2011
Application for Variation EPR/BL8805IZ/V006	Parts C2 and C3 of the application forms and all associated documents. Response to not duly made letter: Thermal capacity for the CHP units, revised H1 assessment, site drain plan, technical information on the anaerobic digestion facility.	21/03/2014
Application for Variation EPR/BL8805IZ/V006	Email from operator responding to request for further information regarding the odour management plan and technical information on the AD process.	09/04/2014
Application for Variation EPR/BL8805IZ/V006	Email received from operator confirming compliance with requirements of standard rules SR2012 No12 other than the storage of the waste.	11/04/2014
Application for Variation EPR/BL8805IZ/V006	Revised plan showing air emission points reference ‘EA 01’	14/04/2014

Table S2.1 as referred to in condition 2.3.2 of the Permit is amended as follows

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Natural Gas	-
Fly Ash	-
Dolomitic Limestone	-
Paper Sludge Ash	Meets the requirements of the Paper Sludge Ash Quality Protocol
Vegetable matter	Substantially free of non-vegetable matter
Maize silage	Substantially free of non-vegetable matter

Table S3.2 as referred to in conditions 3.1.1, 3.5.1 and 3.5.4 of the Permit is amended as follows.

Table S3.2 Non-kiln point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Parameter**	**Source**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
A1 Kiln 1 A2 Kiln 2 A3 Kiln 3 on site plan in Schedule 7]	Particulate matter	Kiln Stack	100 mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 13284-1
A4 Kiln 4 on site plan in Schedule 7]	Particulate matter	Kiln Stack	50 mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 13284-1
A1, A2, A3 and A4	Sulphur dioxide	Kiln Stack	50 mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 15267-3
A1, A2, A3 and A4	Carbon monoxide	Kiln Stack	50 mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 15267-3
A1, A2, A3 and A4	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Kiln Stack	200 mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 14792
A5 Hydrator 2, Hydrated lime plant on site plan in schedule 7	Particulate matter	Hydrated lime plant	30mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 13284-1
A6 Hydrator 3, Hydrated lime plant on site plan in schedule 7	Particulate matter	Hydrated lime plant	30 mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 13284-1
A7 & A8 Microlime Plant on site plan in schedule 7	Particulate matter	Microlime plant	50 mg/m^3	Averaged over the sampling period of at least half an hour.	6 monthly	BS EN 13284-1
A9-13 Stacks on CHP engines 1-5 on site plan 'EA 01'	Oxides of Nitrogen	Stacks on CHP biogas combustion engines	500 mg/m^3	Averaged over the sampling period of at least half an hour.	Annual	MCERTS

submitted 14/4/14.	Carbon monoxide		1,400 mg/m^3	Averaged over the sampling period of at least half an hour.	Annual	MCERTS
	Sulphur dioxide		350 mg/m^3	Averaged over the sampling period of at least half an hour.	Annual	MCERTS
	Total volatile organic compounds including methane		1,000 mg/m^3	Averaged over the sampling period of at least half an hour.	Annual	MCERTS
A15 Auxiliary Flare on site plan 'EA 01' submitted 14/4/14.	Oxides of Nitrogen	Auxiliary flare	No limit set	--	--	Record of operating hours.
A16-A19 Gas store on site plan 'EA 01' submitted 14/4/14.	Biogas	Pressure relief valves	No limit set	--	--	Weekly visual or remote monitoring to ensure valves are correctly seated.

Table S4.1 as referred to in condition 4.2.3 of the Permit is amended as follows.

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3, A4, A5, A6, A7 and A8	Every 6 months	1 January 1 July
Emissions to air Parameters as required by condition 3.5.1.	A9-A13	Annually	1 January

Table S4.2 as referred to in condition 4.2.3 of the Permit is amended as follows.

Table S4.2 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form Air 1 or other form as agreed in writing by the Environment Agency	09/05/14

Schedule 3 – conditions to be added

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

2.3.5 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table(s) S2.2; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

Table S2.2 as referred to in condition 2.3.5 of the Permit is added to Schedule 2.

Table S2.2 Permitted waste types and quantities of non-hazardous wastes for Anaerobic Digestion (A10)	
Maximum quantity	Annual throughput of waste shall not exceed 21,000 tonnes. Maximum storage capacity of any one waste at any one time 28 tonnes. Waste will not be stored for any period longer than 14 days from receipt of waste.
Waste code	**Description**
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 01	sludges from washing and cleaning
02 01 03	plant-tissue waste
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site