

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Castle Cement Limited

**Padeswood Cement Works
Padeswood
Mold
Flintshire
CH7 4HB**

Variation number

EPR/BL1096IB/V015

Permit number

EPR/BL1096IB

Padeswood Cement works

Permit number EPR/BL1096IB

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 variation is to allow the operator to use the Mineral Products Association's Code of Practice which will allow the site to accept and utilise specified waste types for use as alternative raw materials or fuels.

This variation revises the specifications for waste derived fuels including the removal of the group III metals specification in solid and liquid fuels and the renaming of fuels using generic nomenclature.

The variation includes a list of waste codes for materials that could be used as alternative fuels or raw materials subject to meeting the requirements of the risk assessments detailed in the Code of Practice and the operator's Environmental Management System.

The operator will not need to apply for a permit variation each time the site wishes to accept a waste listed in the permit regardless of whether or not the waste stream has been used at the site before.

These changes have been consolidated into permit.

The schedules specify the changes made to the 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 BL1096	Received 29/08/01	
Notice requiring further information	Request sent 17/12/01	Consolidated application incorporating response received 05/06/02
Notice requiring further information	Request sent 11/04/03	Response received 06/06/03
Notice requiring further information	Request sent 17/07/03	Response dated 11/08/03
Additional information from Applicant: revised site plan and confirmation that landfill is not part of the installation	Received 24/10/03	
Additional information from applicant	Received 10/05/04	
Permit Determined BL1096	17/12/04	

Status log of the permit		
Description	Date	Comments
Application for landfill variation	Received 15/04/05	
Notice requiring further information	Request sent 21/07/05	Response received 23/09/05 Response received 09/01/06
Notice requiring further information	Request sent 02/06/06	Response received 03/08/06 Response received 14/08/06 Response received 19/09/06
Variation Determined YP3438	08/11/07	
Application for MBM variation	Duly made 30/03/07	
Notice requiring further information	Request sent 27/06/07	Response received 20/07/07
Additional information from applicant	Received 20/12/07	
Request to amend fuel specification to Standard Waste Derived Fuel Specification for the Cement Sector	Received 21/02/07	
Additional information from applicant	Received 20/02/08	
Variation Determined KP3338UC	03/04/08	
Application for SRF variation	Received 03/07/07	
Notice requiring further information	Request sent 31/07/07	Response received 28/08/07
Additional information from applicant	Received 10/03/08	
Variation Determined AP3134UN	17/04/08	
Application for landfill variation	Duly made 27/05/08	
Additional information from applicant	Received 21/08/08	
Variation Determined EA/EPR/BL1096IB/V005	09/10/08	
Partial surrender application	Received 18/12/09	
Variation Determined EA/EPR/BL1096IB/S007	06/04/10	Partial surrender of permit to remove the operation of a hazardous waste landfill from permit
Environment Agency Cement and Lime Sector Review Variation EPR/BL1096IB/V009	04/08/10	
Environment Agency Variation correcting errors EPR/BL1096IB/V010	15/12/10	
Variation Application EPR/BL1096IB/V011 received	03/05/13	Variation to reduce monitoring requirements following results of a public health study.
Variation Application EPR/BL1096IB/V011 issued	06/09/2013	Variation issued

Status log of the permit		
Description	Date	Comments
Regulation 60(1) Notice of request for more information	06/03/14	Regarding Implementation of BAT conclusions under IED
Regulation 60(1) response received	30/01/15	Regarding Implementation of BAT conclusions under IED
Variation Application EPR/BL1096IB/V012	Duly made 23/02/15	Variation to add in 2 docking stations and pneumatic conveyer
Variation Application EPR/BL1096IB/V012 issued	09/06/15	Variation issued
Request for additional information to support Regulation 60(1) response	26/06/15	
Response to request for additional information received	29/07/15	Clarification on techniques employed in respect of the following BAT conclusions: 2, 5(g), 8, 9, 14, 15, 16, 19 and 20.
Additional information received	02/03/16	Updated site plan
Additional information received	14/03/16	Assessment of background ammonia emissions
Natural Resources Wales Cement Sector Review 2015 Permit EPR/BL1096IB Variation issued EPR/BL1096IB/V013	19/07/16	Varied and consolidated permit issued in modern IED condition format.
Application PAN- 001655 (EPR/BL1096IB/V014)	Duly made 16/06/17	Substantial variation application to add Cement Mill 5 and rail loading facility.
Additional information received	03/11/17	Response to Schedule 5 Notice sent 11 th October 2017
Variation of permit determined	08/01/18	Consolidated Permit issued to Castle Cement Limited
Application PAN- 002355 (EPR/BL1096IB/V015)	Duly Made 12/02/18	Variation to adopt the MPA code of practice
Variation and consolidation determined (EPR/BL1096IB/V015)	15/05/18	Variation and consolidation issued.

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/BL1096IB

issued to

Castle Cement Limited ("the operator")

whose registered office is

**Hanson House
14 Castle Hill
Maidenhead
Berkshire
United Kingdom
SL6 4JJ**

company registration number **02182762**

to the extent set out in the schedules.

The notice shall take effect from 15/05/18

Signed

Date

	15/05/18
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Saul White
Senior Permitting Officer

Authorised on behalf of Natural Resources Wales

Schedule 1 – Conditions to be deleted

Form Air15 has been deleted from the pack of reporting forms.

Schedule 2 – conditions to be amended

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

Condition 2.3.3 is amended to the following:

2.3.3 Waste shall be accepted only if:

- (a) it is of a type listed in schedule 2 table S2.2 S2.3; and
- (b) it conforms to the description in the documentation supplied by the producer and holder

or otherwise with prior written approval from Natural Resources Wales

Condition 2.3.6 is amended to the following:

- 2.3.6 (a) The operator shall use only those waste derived fuels and alternative raw materials listed in table S2.2 of schedule 2 and within the specification ranges specified in table S2.1.

Condition 2.3.8 is amended to the following:

- 2.3.8 Any waste derived fuels not listed in Schedule 2 Table S2.2 shall not be used for the purposes of carrying out a feasibility trial without obtaining the prior written approval from Natural Resources Wales in each case. Any such feasibility trials will be limited to a maximum of 100 tonnes of the fuel and a maximum duration of 14 days.

Condition 2.3.9 is amended to the following:

- 2.3.9 Any waste raw material not listed in Schedule 2 Table S2.2 or Table S2.3 shall not be used without prior written approval from Natural Resources Wales.

Table S1.2 is amended to the following:

Table S1.2 Operating techniques		
Description	Parts	Date Received
Consolidated response to Information Notice dated 17/12/01	Sections 2.1 to 2.11	05/06/02
Response to Information Notice dated 11/04/03	The response given to questions 6 to 18, 23, 25 to 29 & 39	06/06/03
Additional Information May 2004	Sections 3,4, 7 to 18	10/05/04
Variation Application KP3338UC	C2.1 to C2.9, C2.10 (except 2.10.17 to 2.10.20, 2.10.23 and table 2.10.2), C2.11	30/03/07
Response to Information Notice dated 27/06/07	The response given to questions 1,2 and 3	20/07/07
Variation Application AP3134UN	C2.1 to C2.9, C2.10 (except 2.10.18 to 2.10.21, 2.10.24 and table 2.10.2), C2.11	03/07/07
Response to information Notice dated 31/06/07	The response given to questions 1 & 4 to 7	28/08/07
Additional Information August 2008	Use of SNCR (selective non-catalytic reduction)	21/08/08
Supporting information to variation application EA/EPR/BL1096IB/V012, document reference Pad1-2015	All	23/02/15
Information received in support of Natural Resources Wales Cement Sector Permit Review 2014	All parts of operator response to Regulation 60 (1) notice sent 06/03/14	30/01/15
Information received in support of Natural Resources Wales Cement Sector Permit Review 2014	All parts of operator response to Regulation 60 (1) notice sent 26/06/15	29/07/15
Application	Table 3a – technical standards , Part C3 of the application form Best available techniques as described in BAT conclusions under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions for the production of cement, lime and magnesium oxide	16/06/17
Application	Application for variation to Padeswood Works Permit Document Ref CM5	16/06/17
Response to Schedule 5 Notice dated 11/10/17	Response to question regarding BAT for Noise control at CM5	03/11/17
Mineral Products Association Code of Practice for the Use of Waste Materials in Cement and Dolomitic Lime Manufacture	All	06/03/2018

Table S1.2 is amended to the following:

Table S1.3 Improvement programme requirements		
Reference	Requirement	Due Date
IC1	<p>Particulate emission data (Continuous Emissions Monitors) for emission points A3, A4, A5, A6 & A9 shall be corrected to standard reference conditions (as detailed in Schedule 6) from 09/04/17 onwards.</p> <p>Pre-determined correction factors for each emission point may be acceptable as an alternative to upgraded CEMS where the operator can demonstrate that these parameters are stable and consistent, providing historical data as evidence.</p> <p>In line with BS EN 15259, historic moisture and temperature measurements would need to be shown to not vary above or below 10%, (as a guide value), of the statistical mean from available data derived from periodic measurements. The Operator shall provide a report to Natural Resources Wales confirming (for agreement) how particulate emissions data will be corrected.</p>	<p>31/10/16</p> <p>Discharged</p>
IC2	<p>The Operator shall provide a written report detailing the proposed monitoring technique to be employed to demonstrate compliance with the particulate matter ELV of 10 mg/Nm³ at emission points A11 & A12.</p> <p>If the Operator proposes the use of an alternative technique (i.e. not extractive or continuous measurement in accordance with recognised standards), then evidence must be provided to prove the technique will demonstrate compliance with the ELV to an equivalent level of certainty.</p>	<p>31/10/16</p> <p>Discharged</p>
IC3	<p>In order for Natural Resources Wales to set the appropriate emission limit values, the Operator shall submit a report detailing the operational capability (expressed as mg/Nm³ of particulate released) of each bag filter plant associated with emission points A3, A4, A5, A6, A7 & A9. The report shall include:</p> <ol style="list-style-type: none"> I. A statistical analysis of at least two years of particulate monitoring data for each emission point with supporting graphs demonstrating individual values, averages and standard deviations. II. Design specification of each bag plant. III. Details on all maintenance (including filter bag changes) carried out for each bag filter plant during the monitoring period, including dates and times of each maintenance 	<p>30/11/16</p> <p>Discharged</p>

Table S1.3 Improvement programme requirements

Reference	Requirement	Due Date
IC4	<p>If storing Priority Hazardous Substances on site, the Operator must carry out the following assessments with reference to the Environment Agency's guidance "How to carry out a risk assessment if you're applying for a bespoke permit that includes discharging hazardous pollutants to surface water":</p> <p>Phase 1 Part A screening tests for mercury, cadmium, nickel, lead, benzene, polyaromatic hydrocarbons and any other relevant priority hazardous substances.</p> <p>Phase 1 Part B screening tests for mercury, cadmium, polyaromatic hydrocarbons and any other relevant priority hazardous substances.</p> <p>For any substance which is not screened out by the Phase 1 Part A or Part B screening tests the Operator will also need to carry out Phase 2 modelling, as described in "How to carry out a risk assessment if you're applying for a bespoke permit that includes discharging hazardous pollutants to surface water".</p> <p>The Operator must provide Natural Resources Wales with the results of the emissions monitoring, the results from the screening tests and the results from any Phase 2 modelling. The Operator may use the Environment Agency's H1 electronic screening tool to present the emissions data and to carry out the Phase 1 screening tests.</p> <p>Note: With regard to the Phase 1 Part A screening - a full list of priority hazardous substances is provided in the Environment Agency guidance "How to carry out a risk assessment if you're applying for a bespoke permit that includes discharging hazardous pollutants to surface water" under the section entitled "Screening test: priority hazardous pollutants". The Operator must review the list and carry out the screening for any substances, in addition to those specified above, that may be present in the installations discharges to surface water. With regard to the Phase 1 Part B screening for priority hazardous pollutants, the section entitled "Screening test: priority hazardous pollutants" provides a full list of relevant priority hazardous substances and their associated annual significant loads.</p>	28/02/18
IC5	The Operator shall submit a report on the baseline conditions of soil and groundwater at the installation. The report shall contain the information necessary to determine the state of soil and groundwater contamination so as to make a quantified comparison with the state upon definitive cessation of activities provided for in Article 22(3) of the IED. The report shall contain information, supplementary to that already provided in the application Site Condition Report, needed to meet the information requirements of Article 22(2) of the IED.	31/03/18
IC6	The Operator shall submit the written protocol referenced in condition 3.1.3 for the monitoring of soil and groundwater for approval by Natural Resources Wales. The protocol shall demonstrate how the Operator will meet the requirements of Articles 14(1) (b), 14(1) (e) and 16(2) of the IED. The procedure shall be implemented in accordance with the written approval from Natural Resources Wales.	31/03/18
IC7	Given the difficulties of applying the BS 4142 assessment methodology to this specific situation as there are existing sources due to be removed which may be contributing to the background levels. A monitoring study should be carried out once Mill 5 is operational to validate the noise source assumptions and implementation of proposed mitigation measures. A report shall be submitted to Natural Resources Wales demonstrating the results of the monitoring exercise.	After 12 months of Mill 5 operating.
IC8	The operator shall provide a report to Natural Resources Wales detailing the results of spot sampling of CO, NOx and SO2 emissions of the hot gas generator. The results shall be used to verify that the emissions are as predicted.	After 12 months of Mill 5 operating.

Table S2.2 is amended to the following:

Table S2.1 Waste Specifications									
Parameters	Fuel	Waste Derived Fuels (WDF) ***							
	Coal/ Petcoke	PSP	SRF	MBM	Tyres	WLF	RFO	Wood	Alternative Raw Materials (ARM)**
Units	mg/kg (unless stated otherwise)								
Gross Calorific Value (MJ/kg)	-	10-40	10-40	10 -40	15-40	10-42	30-48	10-40	<10
Sulphur	5.00%	≤2.00%	≤2.00%	≤2.00%	≤2.00%	≤2.00%	≤2.00%	≤2.00%	-
Chlorine	-	≤2.00%	≤2.00%	≤2.00%	-	≤2.00%	≤2.00%	≤2.00%	≤1% halogenated organic substances
Total Fluorine, Bromine & Iodine	-	-	≤1.50%	-	-	≤1.50%	-	≤1.50%	-
Mercury	-	≤10	≤10	-	-	≤20	≤10	≤10	≤2
Total Group ii Metals (Cd & Tl)	-	≤30	≤30	-	-	≤40	≤40	≤30	≤50
Maximum replacement	-	-	-	-	-	40%*	-	-	-
Minimum Mineral Content	-	-	-	-	-	-	-	-	80% dry weight (w/w)

* Maximum thermal input as required by Article 46(2) of the Industrial Emissions Directive (2010/75/EU).

** No materials which are defined as carcinogens for the purposes of the COSHH Regulations 2002 (as amended) shall be used.

*** Waste generated on-site in connection with the handling and storing of waste derived fuels must be burnt with 19 02 08 waste at a rate that constitutes less than 1.0% by mass of the 19 02 08 waste feed rate.

Table S2.3 is amended to the following:

Table S2.2 Permitted Waste Derived Fuels and Alternative Raw Materials		
Waste code	Description	WDF or ARM
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	ARM
01 01 02	wastes from mineral non-metalliferous excavation	ARM
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	ARM
01 04 09	waste sand and clays	ARM
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07	ARM
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 04	waste plastics (except packaging)	WDF
02 01 07	wastes from forestry	WDF
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin	
02 02 03	materials unsuitable for consumption or processing	WDF
02 04	wastes from sugar processing	
02 04 01	soil from cleaning and washing beet	ARM
02 04 02	off-specification calcium carbonate	ARM
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	WDF
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04	WDF
03 03	wastes from pulp, paper and cardboard production and processing	
03 03 01	waste bark and wood	WDF
03 03 05	de-inking sludges from paper recycling	WDF
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard	WDF
03 03 08	wastes from sorting of paper and cardboard destined for recycling	WDF
03 03 09	lime mud waste	ARM
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation	WDF
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES	
04 01	wastes from the leather and fur industry	
04 01 02	liming waste	ARM
04 01 09	wastes from dressing and finishing	WDF
04 02	wastes from the textile industry	
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)	WDF
04 02 21	wastes from unprocessed textile fibres	WDF
04 02 22	wastes from processed textile fibres	WDF
05	WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL	
05 06	wastes from the pyrolytic treatment of coal	
05 06 03*	other tars	WDF

06	WASTES FROM INORGANIC CHEMICAL PROCESSES	
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes	
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03	ARM
06 11	wastes from the manufacture of inorganic pigments and opacifiers	
06 11 01	calcium-based reaction wastes from titanium dioxide production	ARM
07	WASTES FROM ORGANIC CHEMICAL PROCESSES	
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres	
07 02 13	waste plastic	WDF
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY	
09 01	wastes from the photographic industry	
09 01 08	photographic film and paper free of silver or silver compounds	WDF
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)	ARM
10 01 02	coal fly ash	ARM
10 01 03	fly ash from peat and untreated wood	ARM
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form	ARM
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form	ARM
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14	ARM
10 01 16*	fly ash from co-incineration containing dangerous substances	ARM
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16	ARM
10 02	wastes from the iron and steel industry	
10 02 10	mill scales	ARM
10 02 13*	sludges and filter cakes from gas treatment containing dangerous substances	ARM
10 09	wastes from casting of ferrous pieces	
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05	ARM
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07	ARM
10 10	wastes from casting of non-ferrous pieces	
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05	ARM
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07	ARM
10 11	wastes from manufacture of glass and glass products	
10 11 03	waste glass-based fibrous materials	ARM
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products	
10 12 03	particulates and dust	ARM
10 12 06	discarded moulds	ARM
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)	ARM
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	ARM
10 13 04	wastes from calcination and hydration of lime	ARM
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)	ARM
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10	ARM
10 13 12*	solid wastes from gas treatment containing dangerous substances	ARM
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12	ARM
10 13 14	waste concrete and concrete sludge	ARM

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 05	plastics shavings and turnings	WDF
12 01 13	welding wastes	WDF
13	OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)	
13 07	wastes of liquid fuels	
13 07 01*	fuel oil and diesel	WDF
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	WDF
15 01 02	plastic packaging	WDF
15 01 03	wooden packaging	WDF
15 01 05	composite packaging	WDF
15 01 06	mixed packaging	WDF
15 01 09	textile packaging	WDF
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	WDF
16 01 19	plastic	WDF
16 01 22	components not otherwise specified	WDF
16 08	spent catalysts	
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified	ARM
16 08 04	spent fluid catalytic cracking catalysts (except 16 08 07)	ARM
16 08 07*	spent catalysts contaminated with dangerous substances	ARM
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	
17 01	concrete, bricks, tiles and ceramics	
17 01 01	concrete	ARM
17 01 02	bricks	ARM
17 01 03	tiles and ceramics	ARM
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	ARM
17 02	wood, glass and plastic	
17 02 01	wood	WDF
17 02 03	plastic	WDF
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	ARM
17 05 06	dredging spoil other than those mentioned in 17 05 05	ARM
17 05 08	track ballast other than those mentioned in 17 05 07	ARM
17 08	gypsum-based construction material	
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01	ARM
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 06*	aqueous liquid wastes from gas treatment and other aqueous liquid wastes	ARM

19 01 13*	fly ash containing dangerous substances	ARM
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)	
19 02 03	premixed wastes composed only of non-hazardous wastes	ARM
19 02 04*	premixed wastes composed of at least one hazardous waste	ARM
19 02 08*	liquid combustible wastes containing dangerous substances	WDF
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09	WDF
19 08	wastes from waste water treatment plants not otherwise specified	
19 08 05	sludges from treatment of urban waste water	ARM
19 09	wastes from the preparation of water intended for human consumption or water for industrial use	
19 09 02	sludges from water clarification	ARM
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 01	paper and cardboard	WDF
19 12 04	plastic and rubber	WDF
19 12 07	wood other than that mentioned in 19 12 06	WDF
19 12 08	textiles	WDF
19 12 09	minerals (for example sand, stones)	ARM
19 12 10	combustible waste (refuse derived fuel)	WDF
19 12 11*	other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances	ARM
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	ARM & WDF
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	WDF
20 01 10	clothes	WDF
20 01 11	textiles	WDF
20 01 38	wood other than that mentioned in 20 01 37	WDF
20 01 39	plastics	WDF

Table S2.3 is amended to the following:

Table S2.3 Permitted waste types and quantities for use as raw materials		
Waste code	Description	Raw Material Type
01 04 10	dusty and powdery wastes other than those in mentioned in 01 04 07	Asphalt filler dust

Continued on next page

Table S3.2 is amended to the following:

Table S3.2 Non-kiln point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A3 on site plan in schedule 7 Note 2	Cement Mill 1	Particulate matter	10 mg/Nm3	Daily average	Continuous measurement	BS EN 14181 Note 1
A4 on site plan in schedule 7 Note 2	Cement Mill 2	Particulate matter	10 mg/Nm3			
A5 on site plan in schedule 7 Note 2	Cement Mill 3	Particulate matter	20 mg/Nm3			
A6 on site plan in schedule 7 Note 2	Cement Mill 4	Particulate matter	10 mg/Nm3			
A7 on site plan in schedule 7 Note 2	Cement Mill 4 Classifier	Particulate matter	20 mg/Nm3			
A9 on site plan in schedule 7	Kiln 4 cooler Exhaust	Particulate matter	20 mg/Nm3			
A10 on site plan in schedule 7	MBM Storage Vessel Bag Filter	Particulate matter	10 mg/Nm3	The frequency of measurements or performance checks shall be based on a maintenance management system.		
A11 on site plan in schedule 7	Clinker Dome Filter	Particulate matter	10 mg/Nm3	Indicative Monitoring	Continuous Measurement	Triboelectric probe
A12 on site plan in schedule 7	Arodo Packer Filter	Particulate matter	10 mg/Nm3			
A13 on site plan in schedule 7	Ammonia Storage Tank Scrubber	No Parameters set	None Set	-	-	-
A14 on site plan in schedule 7	Cemfuel tanks carbon adsorbers.	No Parameters set	None Set	-	-	-

Table S3.2 Non-kiln point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A15 on site plan in schedule 7	Cement Mill 5	Particulate matter	10 mg/Nm3	Periodic over a minimum 30 minute period	Quarterly for the first year, 6 monthly thereafter.	BS EN 13284-1
		Carbon monoxide	None Set	-	-	-
		Oxides of Sulphur expressed as SO2				
		Oxides of nitrogen (NO and NO2 Expressed as NO2)				
Vents including but not limited to those listed in document reference: Hanson Cement Padeswood Works Regulation 60 BAT Conclusions notice 2 Response.	Small sources of particulate matter <10,000 Nm3/hr) from dusty operations other than cooling and the main milling processes e.g. silo vents and conveyer lines.	Particulate matter	10 mg/Nm3	The frequency of measurements or performance checks shall be based on a maintenance management system.		

Note 1 The principles of EN 14181 shall be applied (subject to agreement with Natural Resources Wales). See NRW Guidance Note “Application of BS EN 14181 to CEMs on non-IED Installations” for further information.

Note 2 For A3 – A7, Temperature shall be corrected automatically to 273K using in situ thermocouples. Correction to standard reference pressure (101.3 kPa) shall be calculated using the rolling mean of the pressure recorded during the last 5 periodic (extractive) samples. Correction to dry gas shall be calculated using the rolling mean of the moisture content recorded during the last 5 periodic (extractive) samples.

Table S4.1 is amended to the following;

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	A3, A4, A5, A6, A7, A8 A9 & A15	Continuous monitoring: Every 3 Months	1 January, 1 April, 1 July, 1 October
	A8	Periodic: Every 6 months	January, 1 July 1
Functioning and monitoring of the plant involved in the burning of waste derived fuels, as required by condition 4.2.2	As required by condition 4.2.2	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W1	Every 3 months	1 January, 1 April, 1 July, 1 October
Process Waste Parameters as required by condition 3.5.1	Cement Kiln 4 by-pass dust	Every 6 months	January, 1 July 1
Process Waste Total soluble fraction for free lime content and metals (Antimony, Cadmium, Thallium, Mercury, Lead, Chromium, Copper, Manganese, Nickel, Arsenic, Cobalt, Vanadium, Zinc) and their compounds	Cement Kiln 4 by-pass dust	Before use of a new disposal or recycling route	-
Waste ARM and Waste Derived Fuel Parameter required by condition 1.1.4	List of ARM and WDF permitted at the installation under the COP.	Every 3 months	1 January, 1 April, 1 July, 1 October

Table S4.3 is amended to the following:

Table S4.3 Reporting forms		
Media/parameter	Reporting format	Date of form
Air: 6 monthly periodic monitoring for A8	Form Air1 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of particulate matter for A8	Form Air2 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of TOC for A8	Form Air3 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of hydrogen chloride for A8	Form Air4 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of carbon monoxide for A8	Form Air5 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of sulphur dioxide for A8	Form Air6 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of oxides of nitrogen for A8	Form Air7 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of ammonia for A8	Form Air8 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of particulate matter for A3	Form Air9 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of particulate matter for A4	Form Air10 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of particulate matter for A5	Form Air11 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of particulate matter for A6	Form Air12 or other form as agreed in writing by Natural Resources Wales	19/07/16

Table S4.3 Reporting forms		
Media/parameter	Reporting format	Date of form
Air: Continuous monitoring of particulate matter for A7	Form Air13 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Continuous monitoring of particulate matter for A9	Form Air14 or other form as agreed in writing by Natural Resources Wales	19/07/16
Air: Periodic monitoring of particulate matter for A15	Form Air16 or other form as agreed in writing by Natural Resources Wales	08/01/18
Water: pH, Temperature, & Suspended Solids for W1	Form M / W1	19/07/16
Other performance indicators	Form Performance1 or other form as agreed in writing by Natural Resources Wales	19/07/16
Process Waste	Form Process Waste1 or other form as agreed in writing by Natural Resources Wales	19/07/16
Waste subject to Condition 4.2.5	Waste tonnage return form from the Natural Resources Wales website or other form as agreed in writing by Natural Resources Wales	N/A
Waste Derived Fuel	Form WDF Usage1	15/05/18
Alternative Raw Materials	Form ARM Usage1	15/05/18

Continued on next page

Schedule 3 – conditions to be added

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

The following condition is added to **Section 1.1 - General management**

- 1.1.4 The Operator shall comply with the MPA code of practice, dated October 2014, or as otherwise agreed in writing with Natural Resources Wales.

The following condition is to be added to **Section 4.2 – Reporting**

- 4.2.6 Within 1 month of the end of each quarter, the operator shall submit to Natural Resources Wales, using the form specified, the information specified on the form relating to the types of waste Alternative Raw Materials and Waste Derived Fuels that the Operator has used in that quarter.

The following condition is added to **Section 4.3 – Notifications:**

- 4.3.8 Unless otherwise agreed in writing, the operator shall provide Natural Resources Wales with 7 days written notice prior to the introduction of a new waste derived fuel or raw material listed in the Mineral Products Association's Code of Practice. The introduction of a new waste derived fuel or raw material does not require prior consent from Natural Resources Wales.

Form WDF Usage1 has been added to the pack of reporting forms.

Form ARM Usage1 has been added to the pack of reporting forms.