

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

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Tarmac Cement and Lime Limited  
Hindlow Quarry Lime Works  
Sterndale Moor  
Buxton  
Derbyshire  
SK17 9QD

**Variation number**

EPR/UP3632DQ/V002

**Permit number**

EPR/UP3632DQ

# Hindlow Quarry Lime Works

## Permit number EPR/UP3632DQ

### Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

#### **Brief description of the changes introduced by this variation notice:**

This is an Environment Agency initiated variation and consolidation notice – consolidating previous variations of environmental permit EPR/UP3632DQ. This variation incorporates a number of changes as a result of:

- a statutory review of permits in the Cement and Lime sector
- the incorporation of legislative changes following the publication of “Best Available Techniques (BAT) conclusions” for the production of cement, lime and magnesium oxide – published 9 April 2013.

#### **Brief description of the process:**

Hindlow Quarry Lime Works (the installation) is operated by Tarmac Cement and Lime Limited and is located at Sterndale Moor, around 6km south-east of Buxton, Derbyshire, at grid reference SK09756820. The installation is close to the Peak District National Park, the boundary of which passes within 400m to the south of the installation.

The main activity taking place at the Installation is the production of lime, which is a listed activity in ‘The Environmental Permitting (England and Wales) Regulations 2010’:

Section 3.1 Part A(1) (b) Producing lime or magnesium oxide in kilns with a production capacity of more than 50 tonnes per day.

The purpose of the operations carried out at Hindlow Quarry Lime Works is to produce lime (calcium oxide) and ground lime. The lime is produced by the heating of limestone (calcium carbonate) in two kilns. The processes involved are the importation of limestone by rail or road, limestone screening, lime burning in two Maerz (parallel flow regenerative) kilns (PFRK) and lime grinding. Products from the processes are despatched by road.

Production capacity of the kilns is around 220,000 tonnes of lime per annum.

The installation includes:

- All limestone handling and screening operations
- All associated lime manufacturing, handling, grinding and storage activities
- Surface water drainage and treatment, and discharge to controlled water

#### **Raw Materials Preparation and Handling**

The limestone raw material is sourced from one of the two quarries at the Tunstead Quarry installation, also operated by Tarmac Cement and Lime Ltd and regulated under a separate permit, and delivered to site by rail in dedicated wagons which bottom discharge to a conveyor system. The quarry where the kilns are situated is currently not active and is not included within the installation boundary.

## Lime Production

Limestone is fed into the two Maerz kilns using conveyors. The kilns are fuelled by natural gas to heat the limestone to around 1250°C and drive off carbon dioxide to produce lime (calcium oxide). The Maerz kilns vent to two dedicated stacks via bag filters which filter out any particulates from the exhaust gases. The lime product is screened prior to despatch to customers in bulk tanker or it can be milled and screened to produce a fine lime product. Milled lime is stored in silos and despatched offsite by road tankers.

## Emissions

**Emissions to Air:** The main emissions from the installation are oxides of nitrogen (NO<sub>x</sub>), sulphur dioxide (SO<sub>2</sub>), carbon monoxide (CO) and particulate matter (PM) from the kilns. Particulate matter is also emitted from various conveyors, silos, and mills. Bag filters are fitted on the two kilns and two large mills to abate particulate emissions.

**Emissions to Water:** Surface water drainage is collected in a settlement lagoon, where it is settled and dosed with Carbon dioxide before being either reused in the wheelwash or discharged to a nearby point, where it drains into groundwater.

Material from the lime production process which cannot be sold as a product is used in the cement process at Tunstead Quarry or disposed of at the Doves Holes Dale Mining Waste facility, also operated by Tarmac Cement and Lime Ltd and regulated under separate permit.

There are a number of sensitive ecological receptors close to the installation, with two Special Areas of Conservation (SAC) and one Special Protection Area (SPA), within 10km and 3 Sites of Special Scientific Interest (SSSIs) within 2km. The installation overlies a principal aquifer.

All activities and operations at Hindlow Quarry Lime Works are covered by an Environmental Management System (EMS) which has been certified as conforming to ISO14001.

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 BK9547IN	Duly made 29/08/01	
Response to Request for Further Information	04/02/02	RFI request dated 4 January 2001
Permit determined EPR/BK9547IN	Effective 30/08/02	Permit issued to <b>Buxton Lime Industries Ltd</b>
Transfer XP3134UZ (EPR/XP3134UZ/T001)	Effective 17/05/07	Permit transferred to <b>Tarmac Limited</b>
Variation EPR/XP3134UZ/V002 determined	Effective 30/06/08	Agency initiated variation to clarify conditions and delete redundant conditions
Variation EPR/XP3134UZ/V003 determined	Effective 15/07/10	Agency initiated variation following the Cement and Lime Sector permit review 2010
Variation EPR/XP3134UZ/V004	Duly made 10/09/13	Request to change company name and registered office address
Variation EPR/XP3134UZ/V004 determined	Effective 22/11/13	Permit varied for new company name <b>Lafarge Tarmac Trading Limited</b>
Regulation 60 Notice	Issued 25/04/14	Notice issued to Lafarge Tarmac Trading Limited
Response to Regulation 60 Notice	Received 08/01/15	Additional information received on 03/07/15 and 13/05/16;
Notified of change of company name	14/12/15	

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Variation EPR/XP3134UZ/V005 determined	Effective 08/01/16	Permit varied for new company name <b>Tarmac Trading Limited</b>
Application for Transfer EPR/UP3632DQ/T001	Duly made 06/09/16	
Transfer EPR/UP3632DQ/T001 determined	Effective 12/09/16	Permit transferred from Tarmac Trading Limited to <b>Tarmac Cement and Lime Limited</b>
Additional information	Received 19/10/16	Letter from new operator taking ownership of submissions made by previous operator in response to Regulation 60 Notice.
Environment Agency variation and consolidation EPR/UP3632DQ/V002 (PAS billing reference MP3836DL)	Effective 06/04/17	Environment Agency initiated variation and consolidation following the Cement and Lime Sector permit review

End of introductory note

# Notice of variation and consolidation

## The 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 and consolidates

### Permit number

EPR/UP3632DQ

### Issued to

**Tarmac Cement and Lime Limited** (“the operator”)

whose registered office is

**Portland House**

**Bickenhill Lane**

**Solihull**

**B37 7BQ**

company registration number 00066558

to operate a regulated facility at

**Hindlow Quarry Lime Works**

**Sterndale Moor**

**Buxton**

**Derbyshire**

**SK17 9QD**

to the extent set out in the schedules.

The notice shall take effect from 06/04/2017

Name	Date
Rebecca Warren	06/04/2017

Authorised on behalf of the Environment Agency

## **Schedule 1**

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

**EPR/UP3632DQ**

This is the consolidated permit referred to in the variation and consolidation notice for Environment Agency led variation EPR/UP3632DQ/V002 authorising,

**Tarmac Cement and Lime Limited** (“the operator”),

whose registered office is

**Portland House  
Bickenhill Lane  
Solihull  
B37 7BQ**

company registration number 00066558

to operate a regulated facility at

**Hindlow Quarry Lime Works  
Sterndale Moor  
Buxton  
Derbyshire  
SK17 9QD**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Rebecca Warren	06/04/2017

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

### 1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.



## **2 Operations**

### **2.1 Permitted activities**

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### **2.2 The site**

2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

### **2.4 Improvement programme**

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Where a substance is specified in schedule 3 table S3.3 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.
- 3.1.4 Total annual emissions from the emission points set out in schedule 3 tables S3.1, S3.2 and S3.3 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.
- 3.1.5 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the

operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **3.5 Monitoring**

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1, S3.2, and S3.3;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

## **4 Information**

### **4.1 Records**

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
  - (i) off-site environmental effects; and
  - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

## 4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 1 month of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
  - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

## 4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Environment Agency,
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
    - (iii) take the measures necessary to prevent further possible incidents or accidents;
  - (b) of a breach of any permit condition the operator must immediately—
    - (i) inform the Environment Agency, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
  - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
  - (b) any steps taken with a view to the dissolution of the operator.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
  - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
  - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

## **4.4 Interpretation**

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

## Schedule 1 – Operations

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified	Limits of specified activity
Section 3.1 Part A(1)(b)	Producing lime in a parallel flow regenerative kiln (“PFRK”) with a production capacity of >50 tonnes per day.	From the receipt, storage, screening and feed of limestone and fuel into the kiln through to the despatch of finished product, by road. Includes associated releases to air and abatement plant.
<b>Directly Associated Activity</b>		
Ground lime production	Grinding of lime in one of 3 Mills to produce a fine lime product	Intermediate storage, crushing and milling of lime, including storage and use of additives, through to despatch of finished product by road, including associated air releases.
Water discharge to controlled waters	Discharge of site drainage water from settlement lagoon	Collection and treatment of surface water drainage, including reuse in site activities, through to discharge to underground strata

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to questions 2.3 given in pages 29 to 54 of the application {excluding the reference to the cement plant para 3 2.3.0.3, page 36}.	15/08/01
Response to Schedule 4 Part 1 Notice	Sections 2.3 and the relevant appendices of the application and Schedule 4 response.	04/02/02
Response to Regulation 60(1) Notice dated 25/04/14, requiring information	In relation to the IED Best Available techniques, the details submitted against CLM BAT conclusion numbers 1, 2, 30 – 54 [excluding responses to BATCs 37, 38, 39, 49, 51]	08/01/15
	In relation to the IED Best Available techniques, the details submitted against CLM BAT conclusion numbers 32, 42, 50, 52	03/07/15
	List of dust emission points, Appendix 1 to document “Hindlow comments on draft IED Permit”	13/05/16

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC4	The operator shall provide a report summarising an investigation into the factors affecting the uncertainty of TOC measurements from PFRK kilns. The investigation shall consider the practical application of the relevant standard when dealing with cyclical process associated with PFRK operation. Where appropriate, the operator may undertake stack sampling outside normal compliance testing to further the investigation. The final report may suggest adjustments to the method to ensure uncertainties can be minimised.	31/07/17

## Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
None specified	-

## Schedule 3 – Emissions and monitoring

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	
A1, A2 As shown on site plan in Schedule 7	Maerz kiln stacks No 1 and No 2, via bag filter	Particulate matter	Until 8 April 2017 20 mg/m <sup>3</sup>	Average value over minimum 30 minute period	Six Monthly	BS EN 13284-1	
			From 9 April 2017 10 mg/Nm <sup>3</sup>				
		Sulphur dioxide	50 mg/m <sup>3</sup>				BS EN 14791
		Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	150 mg/m <sup>3</sup>				BS EN 14792
		Carbon monoxide	500 mg/m <sup>3</sup>				BS EN 15058
		Total Organic Carbon (TOC)	From 9 April 2017 30 mg/Nm <sup>3</sup>		Annual	BS EN 12619	
		Dioxins and Furans PCDD/F I-TEQ/Nm <sup>3</sup>	From 9 April 2017 0.1 ng PCDD/F I-TEQ/Nm <sup>3</sup>		Average value over sampling period of 6-8 hours or	Annual	BS EN 1948 Parts 1, 2 & 3 or as agreed in writing with the EA

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A3 As shown on site plan in Schedule 7	Lopulco Mill	Particulate matter	Until 8 April 2017 50 mg/m <sup>3</sup>	Average value over minimum 30 minute period	Annual	BS EN 13284-1
			From 9 April 2017 10 mg/Nm <sup>3</sup>			
A4 As shown on site plan in Schedule 7	PHI Mill		Until 8 April 2017 50 mg/m <sup>3</sup>			
			From 9 April 2017 10 mg/Nm <sup>3</sup>			
All other channelled dust emissions abated by filters <sup>1</sup>	Conveyors, bunkers, crushed lime elevator, silos, crusher, kiln feeder/discharge		From 9 April 2017 10 mg/Nm <sup>3</sup>	-	In accordance with a maintenance management system	Permanent sampling access not required

1. Emission points listed in response to Regulation 60 Notice dated 24/04/14, relating to BAT conclusion 42



<b>Table S3.3 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W1 At NGR SK0984968149; shown on site plan in Schedule 7	Settlement lagoon taking general site drainage	Suspended solids	30 mg/l	Spot sample	Six monthly	BS EN 872
		pH	Max 9.0 Min 5.0			BS EN ISO 10523:2012
		Oil and Hydrocarbons	None visible			visual check

<b>Table S3.4 Annual limits</b>		
<b>Substance</b>	<b>Medium</b>	<b>Limit (including unit)</b>
None	-	-

## Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Emissions to air Parameters as required by condition 3.5.1	A1, A2, A3, A4	6 monthly extractive monitoring reported every 6 months	1 January
		Annual extractive monitoring reported annually	

<b>Table S4.2: Annual production/treatment</b>	
<b>Parameter</b>	<b>Units</b>
No Parameters specified	-

<b>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
No Parameters specified	-	-

<b>Table S4.4 Reporting forms</b>		
<b>Media/parameter</b>	<b>Reporting format</b>	<b>Date of form</b>
Air	Form air 1 or other form as agreed in writing by the Environment Agency	April17

## Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

### Part A

Permit Number	<b>EPR/UP3632DQ</b>
Name of operator	<b>Tarmac Cement and Lime Limited</b>
Location of Facility	<b>Hindlow Quarry Lime Works</b>
Time and date of the detection	

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified within 24 hours of detection</b>	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

**Part B – to be submitted as soon as practicable**

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

“*abatement equipment*” means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media.

“*accident*” means an accident that may result in pollution.

“*annually*” means once every year.

“*application*” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“*authorised officer*” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“*background concentration*” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“*Climate Change Agreement*” means an agreement made between the Secretary of State and the operator, either directly or through the offices of any association of which he is a member, in which he agrees to secure energy efficiency improvements as set out in a plan agreed with the Secretary of State in that agreement in return for a discount from the amount he would otherwise pay as a Climate Change Levy.

“*dioxin and furans*” means polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, listed in the table below.

“*ELV*” means emission limit value.

“*emissions of substances not controlled by emission limits*” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“*emissions to land*” includes emissions to groundwater.

“*EP Regulations*” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“*groundwater*” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“*Industrial Emissions Directive*” or “*IED*” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

“*ISO*” means International Standards Organisation.

“*Lime*” also called “*quicklime*” or “*burned lime*” is calcium oxide (CaO) produced by the decarbonisation of limestone (CaCO<sub>3</sub>).

“*Lime products*” is a term which covers quicklime and slaked lime.

“*MCERTS*” means the Environment Agency’s Monitoring Certification Scheme.

“*monitoring*” includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

“*oxides of nitrogen (NO<sub>x</sub>)*” means nitric oxide (NO) plus nitrogen dioxide (NO<sub>2</sub>) expressed as NO<sub>2</sub>

“*permitted installation*” means the activities and the limits to those activities described in Table S1.1 of this Permit.

“*six monthly periodic monitoring*” means periodic monitoring in each 6 month period (January-June & July –December) with at least 4 months between sampling dates.

“*SSSI*” means a site of special scientific interest designated under the Wildlife and Countryside Act 1981 being a site in the UK which is of particular importance because of its geology, topography, or ecology.

“*TOC*” means Total Organic Carbon. In respect of releases to air, this means the gaseous and vaporous organic substances, expressed as TOC.

“*Waste Framework Directive*” or “*WFD*” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

“year” means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- (a) in relation to emissions from lime kilns, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 11% dry for all fuels;
- (b) in relation to emissions from non-combustion sources, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with no correction required for oxygen.

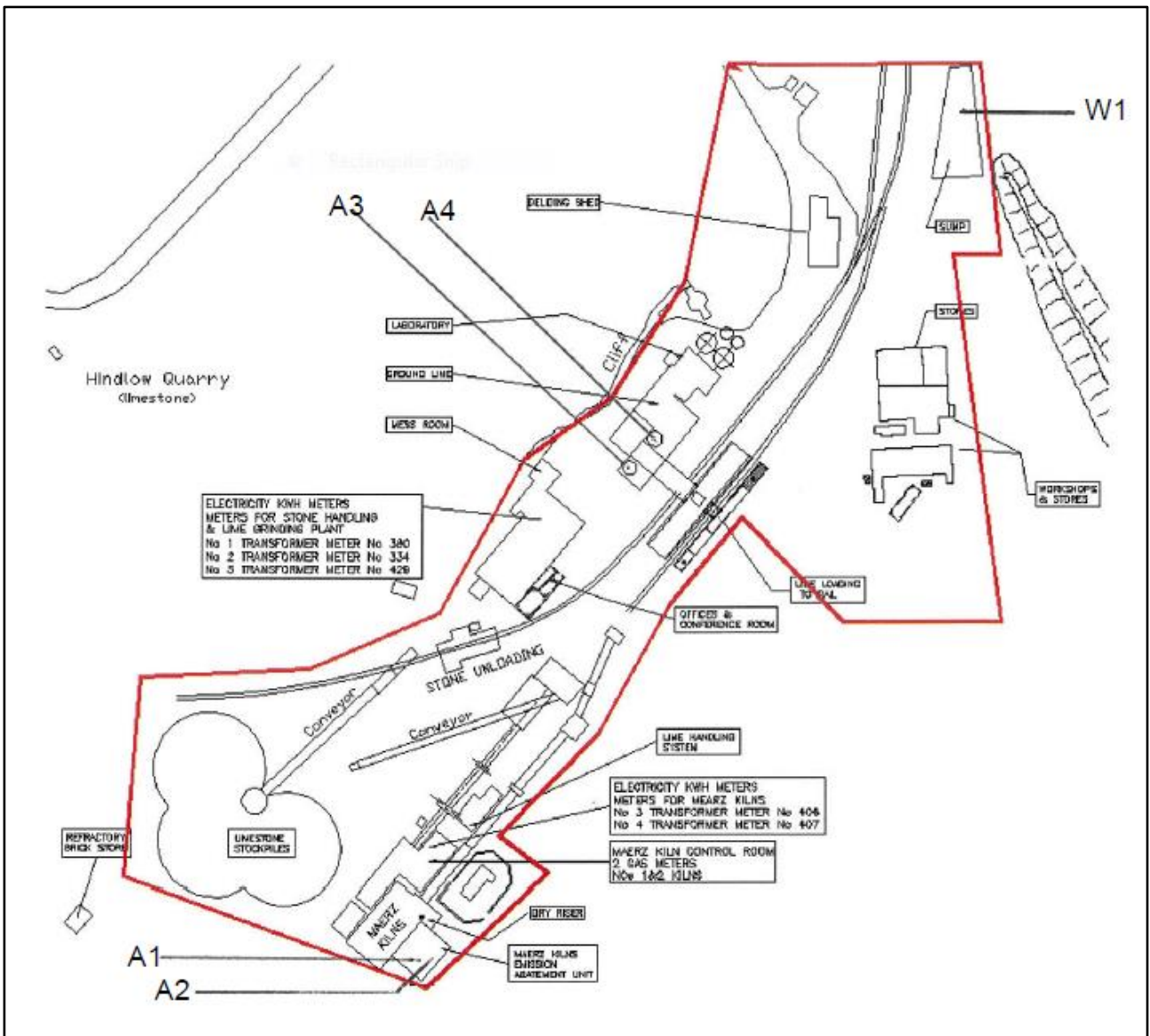
For dioxins/furans and dioxin-like PCBs the determination of the toxic equivalence concentration (I-TEQ, & WHO-TEQ for dioxins/furans, WHO-TEQ for dioxin-like PCBs) stated as a release limit and/ or reporting requirement, the mass concentrations of the following congeners have to be multiplied with their respective toxic equivalence factors before summing.

<b>TEF schemes for dioxins and furans</b>				
<b>Congener</b>	<b>I-TEF</b>	<b>WHO-TEF</b>		
		<b>1990</b>	<b>2005</b>	<b>1997/8</b>
		<b>Humans / Mammals</b>	<b>Fish</b>	<b>Birds</b>
<b>Dioxins</b>				
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	0.5	1	1	1
1,2,3,4,7,8-HxCDD	0.1	0.1	0.5	0.05
1,2,3,6,7,8-HxCDD	0.1	0.1	0.01	0.01
1,2,3,7,8,9-HxCDD	0.1	0.1	0.01	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.001	<0.001
OCDD	0.001	0.0003	-	-
<b>Furans</b>				
2,3,7,8-TCDF	0.1	0.1	0.05	1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.1
2,3,4,7,8-PeCDF	0.5	0.3	0.5	1
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.01
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.01
OCDF	0.001	0.0003	0.0001	0.0001

<b>TEF schemes for dioxin-like PCBs</b>			
<b>Congener</b>	<b>WHO-TEF</b>		
	<b>2005</b>	<b>1997/8</b>	
	<b>Humans / mammals</b>	<b>Fish</b>	<b>Birds</b>
<b>Non-ortho PCBs</b>			
3,4,4',5-TCB (81)	0.0001	0.0005	0.1
3,3',4,4'-TCB (77)	0.0003	0.0001	0.05
3,3',4,4',5 - PeCB (126)	0.1	0.005	0.1
3,3',4,4',5,5'-HxCB(169)	0.03	0.00005	0.001
<b>Mono-ortho PCBs</b>			
2,3,3',4,4'-PeCB (105)	0.00003	<0.000005	0.0001

<b>TEF schemes for dioxin-like PCBs</b>			
<b>Congener</b>	<b>WHO-TEF</b>		
	<b>2005</b>	<b>1997/8</b>	
	<b>Humans / mammals</b>	<b>Fish</b>	<b>Birds</b>
2,3,4,4',5-PeCB (114)	0.00003	<0.000005	0.0001
2,3',4,4',5-PeCB (118)	0.00003	<0.000005	0.00001
2',3,4,4',5-PeCB (123)	0.00003	<0.000005	0.00001
2,3,3',4,4',5-HxCB (156)	0.00003	<0.000005	0.0001
2,3,3',4,4',5'-HxCB (157)	0.00003	<0.000005	0.0001
2,3',4,4',5,5'-HxCB (167)	0.00003	<0.000005	0.00001
2,3,3',4,4',5,5'-HpCB (189)	0.00003	<0.000005	0.00001

# Schedule 7 – Site plan



END OF PERMIT