Environment Agency Permitting Decisions

Review of an Environmental Permit for an Installation subject to Chapter II of the Industrial Emissions Directive under the Environmental Permitting (England & Wales) Regulations 2010 (as amended)

Decision document recording our decision-making process following review of a permit

The Permit number is:	**EPR/BL3242IA**
The Operator is:	**Tarmac Aggregates Limited**
The Installation is:	**Whitwell Quarry Lime Works**
This Variation Notice number is:	**EPR/BL3242IA/V006**

What this document is about

Article 21(3) of the Industrial Emissions Directive (IED) requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication by the European Commission of updated decisions on BAT conclusions.

We have reviewed the permit for this installation against the revised BAT Conclusions for the production of cement, lime and magnesium oxide industry sector published on 9 April 2013 in the Official Journal of the European Union. Where appropriate, we also considered other relevant BAT Conclusions published prior to this date but not previously included in a permit review for the Installation. In this decision document, we set out the reasoning for the consolidated variation notice that we have issued.

It explains how we have reviewed and considered the techniques used by the Operator in the operation and control of the plant and activities of the installation. This review has been undertaken with reference to the decision made by the European Commission establishing best available techniques (BAT) conclusions (BATc) for the production of cement, lime and magnesium oxide as detailed in document reference 2013/163/EU. It is our record of our decision-making process and shows how we have taken into account all relevant factors in reaching our position. It also provides a justification for the inclusion of any specific conditions in the permit that are in addition to those included in our generic permit template.

As well as considering the review of the operating techniques used by the Operator for the operation of the plant and activities of the installation, the consolidated variation notice takes into account and brings together in a single document all previous variations that relate to the original permit issue. Where this has not already been done, it also modernises the entire permit to reflect the conditions contained in our current generic permit template.

The introduction of new template conditions makes the Permit consistent with our current general approach and with other permits issued to installations in this sector. Although the wording of some conditions has changed, while others have been deleted because of the new regulatory approach, it does not reduce the level of environmental protection achieved by the Permit in any way. In this document we therefore address only our determination of substantive issues relating to the new BAT Conclusions and any changes to the operation of the installation.

We try to explain our decision as accurately, comprehensively and plainly as possible. Achieving all three objectives is not always easy, and we would welcome any feedback as to how we might improve our decision documents in future.

How this document is structured

1. Our proposed decision
2. How we reached our decision
3. The legal framework
4. Annex 1– Review of operating techniques within the Installation against BAT Conclusions
5. Annex 2 – Improvement Conditions
6. Annex 3 – Review and assessment of changes that are not part of the BAT Conclusions derived permit review

1 Our decision

We have decided to issue the Variation Notice to the Operator. This will allow it to continue to operate the Installation, subject to the conditions in the Consolidated Variation Notice.

We consider that, in reaching our decision, we have taken into account all relevant considerations and legal requirements and that the varied permit will ensure that a high level of protection is provided for the environment and human health.

The Consolidated Variation Notice contains many conditions taken from our standard Environmental Permit template including the relevant annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the Environmental Permitting Regulations and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the Notice, we have considered the techniques identified by the operator for the operation of their installation, and have accepted that the details are sufficient and satisfactory to make those standard conditions appropriate. This document does, however, provide an explanation of our use of "tailor-made" or installation-specific conditions, or where our Permit template provides two or more options.

2 How we reached our decision

2.1 Requesting information to demonstrate compliance with BAT Conclusion techniques

We issued a Notice under regulation 60(1) of the Environmental Permitting (England and Wales) Regulations 2010 (a Regulation 60 Notice) on 30 April 2014 requiring the Operator to provide information to demonstrate where the operation of their installation currently meets, or how it will subsequently meet, the revised standards described in the relevant BAT Conclusions document. The Notice required that where the revised standards are not currently met, the operator should provide information that

- Describes the techniques that will be implemented before 9 April 2017, which will then ensure that operations meet the revised standard, or
- justifies why standards will not be met by 9 April 2017, and confirmation of the date when the operation of those processes will cease within the installation or an explanation of why the revised BAT standard is not applicable to those processes, or
- justifies why an alternative technique will achieve the same level of environmental protection equivalent to the revised standard described in the BAT Conclusions.

Where the Operator proposed that they were not intending to meet a BAT standard that also included a BAT Associated Emission Level (BAT AEL) described in the BAT Conclusions Document, the Regulation 60 Notice required that the Operator make a formal request for derogation from compliance with that AEL (as provisioned by Article 15(4) of IED). In this circumstance, the Notice identified that any such request for derogation must be supported and justified by sufficient technical and commercial information that would enable us to determine acceptability of the derogation request.

The Regulation 60 Notice response from the Operator was received on 7 January 2015.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review but not that it necessarily contained all the information we would need to complete that determination.

The Operator made no claim for commercial confidentiality. We have not received any information in relation to the Regulation 60 Notice response that appears to be confidential in relation to any party.

2.2 Review of our own information in respect to the capability of the installation to meet revised standards included in the BAT Conclusions document

Based on our records and previous experience in the regulation of the installation we have no reason to consider that the operator will not be able to comply with the techniques and standards described in the BAT Conclusions.

2.3 Requests for Further Information during determination

Although we were able to consider the Regulation 60 Notice response generally satisfactory at receipt, we did in fact need more information in order to complete our permit review assessment, and issued a further information request on 22 May 2015 (response received 3 July 2015). Copies of the further information request and response were placed on our public register.

In addition to the response to our further information request, we received additional information during the determination from the Operator relating to noise and non-kiln dust emission points on 5 July 2017. We made a copy of this information available to the public in the same way as the response to our information request.

3 The legal framework

The Consolidated Variation Notice will be issued, under Regulations 18 and 20 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED;
- subject to aspects of other relevant legislation which also have to be addressed.

We consider that, in issuing the Consolidated Variation Notice, it will ensure that the operation of the Installation complies with all relevant legal requirements and that a high level of protection will be delivered for the environment and human health.

We explain how we have addressed specific statutory requirements more fully in the rest of this document.

Annex 1: decision checklist regarding relevant BAT Conclusions

BAT Conclusions for the production of cement, lime and magnesium oxide, were published by the European Commission on 9 April 2013. There are 69 BAT Conclusions; 1 and 2 are generally applicable, 3 – 29 apply to the cement industry, 30 – 54 apply to the lime industry, and 55 – 69 apply to the production of magnesium oxide. This annex provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation. This annex should be read in conjunction with the Consolidated Variation Notice.

Tarmac Aggregates Ltd quarry and process (by crushing and screening) calcium magnesium carbonate (dolomite) from the onsite quarry primarily to produce feed stone for use by Steetley Dolomite Ltd in their rotary kilns at Whitwell works, regulated under permit EPR/BL3269IH for listed activity S3.1 A(1)(b). This processing of stone is a directly associated activity (DAA) of the production of dolomitic lime and is therefore part of the same installation as the lime kilns (a Multi-Operator installation). Any processing of stone for aggregates is a section 3.5 part B activity.

This permit has been included within the cement and lime permit review, as part of a lime installation. However a significant number of BAT conclusions do not apply.

Our assessment of the overall status of compliance with the BAT conclusion is indicated in the table as:

NA	Not Applicable
CC	Currently Compliant: we have reviewed the information available to us and consider that it provides sufficient evidence to show that the operator is currently compliant with the BAT conclusion, and we have no reason to believe that this will change before the implementation date.
FC	Compliant in the future (within 4 years of publication of BAT conclusions): we have reviewed the information available to us and consider that it provide sufficient evidence to show that the operator has suitable plans in place to ensure that they will be compliant with the BAT conclusion by the implementation date.
NC	Not Compliant

BAT Conclusion No	Summary of BAT Conclusion requirement for production of cement, lime and magnesium oxide	Status NA/CC/ FC/NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
3-29 55-69	BAT Conclusions that are not applicable to this installation	**NA**	BAT Conclusions 3 – 29 inclusive are not applicable as they apply to cement industry only. BAT Conclusions 55 – 69 inclusive are not applicable as they apply to the magnesium oxide industry only.
1	In order to improve the overall environmental performance of the plants/installations producing cement, lime and magnesium oxide, production BAT is to implement and adhere to an environmental management system (EMS) that incorporates all of the listed features.	**CC**	An EMS certified to ISO14001 is in place.
2	In order to reduce/minimise noise emissions during the manufacturing processes for cement, lime and magnesium oxide, BAT is to use a combination of the listed techniques.	**CC**	TAL have outlined a number of techniques that they employ to reduce/minimise noise emissions. Mobile crushing and screening plant is used for processing non-kiln stone and is located in the base of the Quarry. Kiln feed stone is crushed and screened by fixed plant located adjacent to and east of the kilns area. There are no residential properties located in the vicinity of the fixed plant. Appropriate locations are therefore used for all noisy operations. Trees and vegetation are used to screen the site.
30	In order to reduce all kiln emissions and use energy efficiently, BAT is to achieve a smooth and stable kiln process, operating close to the process parameter set points by using the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
31	In order to prevent and/or reduce emissions, BAT is to carry out a careful selection and control of the raw materials entering the kiln.	**NA**	TAL are not responsible for feeding material into the kilns; they prepare and supply stone to Steetley Dolomite Ltd based on a specification provided by SDL. Any material unsuitable for use in the kilns is sold as an aggregate product.
32	BAT is to carry out monitoring and measurements of process parameters and emissions on a regular basis and to monitor emissions in accordance with	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)

BAT Conclusion No	Summary of BAT Conclusion requirement for production of cement, lime and magnesium oxide	Status NA/CC/ FC/NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	the relevant EN standards or, if EN standards are not available, ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.		
33	In order to reduce/minimise thermal energy consumption, BAT is to use a combination of the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
34	In order to minimise electrical energy consumption, BAT is to use one or a combination of the listed techniques.	**CC**	Mobile plant is powered directly using liquid fuels. Static plant is powered by mains electricity, and use is measured. Plant is replaced periodically with more energy efficient parts. ***It is recommended that compliance with this BATc is audited by the Area team.***
35	In order to minimise limestone consumption, BAT is to use one or a combination of the listed techniques.	**CC**	TAL supply stone to SDL in accordance with a specification. Extensive analysis of stone is undertaken to establish whether stone is suitable for use in the kilns. Any stone unsuitable for use in the kilns is sold as an aggregate product.
36	In order to prevent/reduce emissions, BAT is to carry out a careful selection and control of fuels entering the kiln.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
37	In order to guarantee the characteristics of waste to be used as fuel in a lime kiln, BAT is to apply the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
38	In order to prevent/reduce emissions occurring from the use of waste fuels into the kiln, BAT is to use the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
39	In order to prevent accidental emissions, BAT is to use safety management for the storage, handling	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)

BAT Conclusion No	Summary of BAT Conclusion requirement for production of cement, lime and magnesium oxide	Status NA/CC/ FC/NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	and feeding into the kiln of hazardous waste materials.		
40	In order to minimise/prevent diffuse dust emissions from dusty operations, BAT is to use one or a combination of the listed techniques.	**CC** **FC**	TAL employs a number of BAT techniques to minimise and prevent dust emissions from dusty operations, including; enclosure of the primary crusher and maintenance of crushing and screening equipment. TAL indicated that fugitive dust has been observed from conveyors (fixed plant). TAL stated that improvements to minimise fugitive dust will be implemented by the compliance date. ***As fugitive dust has been an issue at site, it is recommended that compliance with this BATc is audited by the Area team.***
41	In order to minimise/prevent diffuse dust emissions from bulk storage areas, BAT is to use one or a combination of the listed techniques.	**CC**	TAL employs a number of BAT techniques to minimise and prevent dust emissions from bulk storage areas, including; storage of materials in the base of the quarry to provide screening by the quarry walls (the boundary is also screened by a fence and vegetation), use of a water bowser in dry conditions, provision of a wheel wash, cleaning site roads, and reduction of drop heights. ***As fugitive dust has been an issue at site, it is recommended that compliance with this BATc is audited by the Area team.***
42	In order to reduce channelled dust emissions from dusty operations other than those from kiln firing processes, BAT is to use one of the listed techniques and to use a maintenance management system which specifically addresses the performance of filters.	**NA**	There are no channelled dust emissions associated with the extent of the installation operated by TAL. (Refer to DD and permit for BL3269IH for compliance with this BATC)
43	In order to reduce dust emissions from the flue-gases of kiln firing processes, BAT is to use flue-gas cleaning with a filter. One or a combination of the listed techniques can be used.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)

BAT Conclusion No	Summary of BAT Conclusion requirement for production of cement, lime and magnesium oxide	Status NA/CC/ FC/NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
44	In order to reduce the emissions of gaseous compounds (i.e. NOx, SOx , HCl, CO, TOC/VOC, volatile metals) from the flue-gases of kiln firing processes, BAT is to use one or a combination of the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
45	In order to reduce the emissions of NOx from the flue-gases of kiln firing processes, BAT is to use one or a combination of the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
46	When SNCR is used, BAT is to achieve efficient NOx reduction, while keeping the ammonia slip as low as possible, by using the listed technique.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
47	In order to reduce the emissions of SOx from the flue-gases of kiln firing processes, BAT is to use one or a combination of the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
48	In order to reduce the emissions of CO from the flue-gases of kiln firing processes, BAT is to use one or a combination of the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
49	In order to minimise the frequency of CO trips when using electrostatic precipitators, BAT is to use the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
50	In order to reduce the emissions of TOC from the flue-gases of kiln firing processes, BAT is to use one or a combination of the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
51	In order to reduce the emissions of HCl and the emissions of HF from the flue-gas of kiln firing	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)

BAT Conclusion No	Summary of BAT Conclusion requirement for production of cement, lime and magnesium oxide	Status NA/CC/ FC/NC	Assessment of the installation capability and any alternative techniques proposed by the operator to demonstrate compliance with the BAT Conclusion requirement
	processes, when using waste, BAT is to use the listed primary techniques.		
52	In order to prevent or reduce the emissions of PCDD/F from the flue-gas of kiln firing processes, BAT is to use one or a combination of the listed primary techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
53	In order to minimise the emissions of metals from the flue-gases of kiln firing processes, BAT is to use one or a combination of the listed techniques.	**NA**	This BATC relates to kiln operation. This is a multi-operator installation and TAL do not operate the kilns at Whitwell Quarry, therefore this BATc is not relevant to this Operator and permit. (Refer to DD for BL3269IH for compliance with this BATC)
54	In order to reduce the solid wastes from the lime manufacturing processes and to save raw materials, BAT is to use the listed techniques.	**CC**	TAL does not operate the lime manufacturing process, hence does not control solid lime wastes. Any raw materials unsuitable for use in the kilns are sold by TAL as an aggregate product material.

Key Issues

This Installation comprises two permits (as a multi-operator Installation):

- The lime kilns – operated by Steetley Dolomite Limited (permit EPR/BL3269IH)
- The Quarry – operated by Tarmac Aggregates Limited (this permit)

This permit relates to preparation, handling and storage of materials for process feedstock to the lime kilns as operated by Steetley Dolomite, and therefore most of the above BAT conclusions are irrelevant for this permit (and more appropriate for the operator of the lime kilns).

There are no air emissions associated with this permit, consequently there are no limits or monitoring requirements to review. Because there are no AELs applicable, there is no scope for derogations.

Where relevant and appropriate, we have incorporated the techniques described by the Operator in their Regulation 60 Notice response as specific operating techniques required by the permit, through their inclusion in Table S1.2 of the Consolidated Variation Notice.

WFD catchment issues [not BATc related]:
This installation is located in the Poulter river catchment which is currently failing its Water Framework Directive (WFD) objective and is consequently a priority catchment for improvement for the EA. Historically there have been issues of solids build-up in ponds downstream. Traditionally this was a coal mining area, although all mines are now closed.

Since the site was first permitted, Tarmac have moved historic colliery spoil from an area of site known as the Belph tip in order to extend the quarry and extract mineral from here. The installation boundary was extended to include this area through V003, in July 2015. The colliery spoil has been deposited in the quarry void under a Groundwater Authorisation.

A focus of the permit review for this Operator has therefore been the water discharges. The monitoring requirements have been reviewed to ensure that they are appropriate, and several improvement conditions are set to ensure standards and limits are met and discharges are fully characterised – refer Annexes 2 and 3.

Tarmac Aggregates have responsibility for the water discharges off site with 4 listed discharge points, W1 – W4. W1, W2 and W3 were included in the original permit (issued Mar 2004) however only W2 was in use for many years. W3 was brought into operation in July 2014, W4 in 2017 (having been permitted in Dec16) and W1 in July 2018. This has significantly increased the potential for environmental impact of the installation's water emissions.

Tarmac take all surface water run-off from Steetley Dolomite Limited's area, most of which is settled prior to discharge. Following some historic suspended solids limit breaches, an investigation identified that unsettled road drainage from an area around the kilns was draining direct to watercourse without settlement. Some but not all, drainage has been re-routed to achieve settlement.

Annex 2: Improvement Conditions

Based on the information in the Operator's Regulation 60 Notice response and our own records of the capability and performance of the installation at this site, we do not consider that we need to set improvement conditions in order that the outcome of the techniques detailed in the BAT Conclusions are achieved by the installation.

We consider that we need to set improvement conditions relating to changes in the permit not arising from the review of compliance with BAT conclusions. These are detailed in this Annex.

Completed Improvement conditions:

The following table lists the improvements conditions set when the original permit was issued in Mar 2004 and are now deemed complete; these are being removed from the permit. The permit now contains improvement conditions commencing at number IC1 (in line with current numbering convention).

Table 9.1.1: Improvement programme requirements		
Reference	**Requirement**	**Date**
9.1	The Operator shall include procedures in the Environmental Management System to ensure that fugitive emissions are reviewed on an annual basis and summary reports on the reviews are submitted to the Environment Agency detailing such releases and the measures taken or proposed to be taken to reduce them	**complete**
9.2	The Operator shall submit a report to the Environment Agency on potential environmental improvements to the permitted Installation. For each of the subject areas identified in Section 2 of the appropriate technical guidance, the report shall assess the costs and benefits of alternative techniques that may provide environmental improvement. This shall include, but not be limited to, those techniques listed in the guidance. The methodologies used should be based on those given in the relevant Environment Agency guidance as available and should justify BAT criteria, where potential improvements are not planned to be implemented. As part of the environmental management system, the Operator shall submit an updated report every 36 months.	**complete**
9.3	The Operator shall submit a report to the Environment Agency on the progress to establish an appropriately registered or certified Environmental Management System having regard to section 2.1 of the relevant IPPC Sectoral or other Technical Guidance. The report shall include timescales to implement such a system and report on ongoing annual targets from such an Environmental Management System.	**complete**
9.4	Ensure any bunding on site complies with the requirements of the oil storage regulations. The operator shall submit a written report outlining the status of compliance and a programme for improving those bunds which do not comply.	**complete**
9.5	The Operator shall undertake an assessment of the 3 discharge points to controlled waters and provide evidence that the settlement lagoons are appropriately sized and maintained to ensure compliance with the standards imposed by this permit. The operator shall also undertake an impact assessment of the releases to the watercourses concerned. A written submission shall be made to the Agency considering these issues with any conclusions made.	**complete**
9.6	The Operator shall carry out a review of alternative methodologies for estimating fugitive dust releases (PM_{10} and $PM_{2.5}$) for comparison with the current emission factor based accounting method (from the following process activities quarrying, crushing & screening, material storage and material conveying). This shall include but not be limited to the use of dispersion modelling and actual monitoring data. A report of the review and comparison shall be sent to the Environment Agency.	**complete**
9.7	In conjunction with Lafarge Lime the Operator shall undertake and submit a more recent noise assessment of the operations at the site than those in the application. This shall exclude blasting which is outside of the regulation of the permit. An appropriate methodology shall be adopted and justified eg BS4142 for fixed plant and MPG11/BS5228 for other plant. The noise impact assessment submitted shall be relevant to the installation boundary.	**complete**
9.8	In conjunction with Lafarge Lime the Operator shall make a written submission to address the installation wide issues as required under section 2.12 of the sector guidance.	**complete**

New Improvement conditions:

IC1: MCERTS for flow monitoring of surface water discharges

Currently it is not clear whether the monitoring of flow at all 4 discharge points meets MCERTS standards. Variation V005, issued Dec 16, introduced the requirement for MCERTS when previously no standard or method was specified in the permit. We would like to ensure that flow monitoring meets the appropriate standard at all 4 discharge points, with both total flow (m^3/d) and instantaneous flow (l/s) being measured and recorded.

The IC also requires the Operator to look at measuring total flow discharged to the watercourse at W2, ie both the pumped flow and any unsettled road drainage.

Currently only the pumped flow is measured so volumes may exceed the daily limit during rainfall.

The Operator shall carry out a review of flow measurement at each of the four discharge points, as listed within table S3.1 of this permit. The review shall cover the provision of MCERTS certification for flow measurement, as well as measurement of total flow discharging at W2 (ie including any unsettled road drainage). The review shall consider Environment Agency guidance "Minimum Requirements for the Self-Monitoring of Flow" (dated August 2014). A written report shall be submitted for approval to the Environment Agency detailing the findings from the review together with proposed timescales for implementation of MCERTS and any other required changes at each discharge point.	15 July 2019 (3 months from variation issue)

IC2: assessment of bunds and other containment

Although the Operator has made improvements to bunding and chemical/fuel storage, there are still some areas which may require attention. This IC is set to require the Operator to demonstrate that all containment measures meet current guidance, and if not, to identify improvements required.

The Operator shall undertake an assessment of containment measures on site including the ability of any containment structures, such as bunds or other secondary containment, and site drainage infrastructure, to prevent pollution to surface water and groundwater from the storage of chemicals and liquids. A written report detailing the findings from the assessment shall be submitted to the Environment Agency. The report shall include, but not be limited to: • The requirements of Environment Agency guidance: Control and monitor emissions for your environmental permit. • CIRIA guidance: containment systems for the prevention of pollution (C736). The report shall identify any required improvements, together with proposed timescales for their implementation. The report shall be submitted to the Environment Agency for written approval.	15 July 2019 (3 months from variation issue)

IC3: site condition – baseline report

An IC has been set to ensure that the Operator has a comprehensive baseline report meeting the requirements of IED. Further details are included in Annex 3.

The operator shall undertake a review of the original IPPC Phase 1a, 1b and 2 site reports and the response to our Regulation 60 Notice issued on 30/4/2014, and submit a written report to the Environment Agency for approval in writing. The review shall include at least the following: • Reference to historical spillages, the chemicals involved and locations so as to inform existing locations of chemicals and storage tanks. • Confirmation of the locations of current and de-commissioned bulk liquid storage areas and tanks (for storage of hazardous substances) within the permit boundary, including an inventory of storage quantities / maximum storage quantities and location plan.	15 Oct 2019 (6 months from variation issue)

• An appraisal of the condition of any storage tanks, • Whether any tanks have been de-commissioned and replaced since 2001. • Results from any visual or olfactory checks (of contamination) located around such hazardous storage areas. The review shall consider Environmental Standards (rather than ICRCL criteria) for assessing contamination, specifically "Industrial emissions Directive Draft EPR Guidance on Part A installations.' Dated March 2011 by DEFRA (section 5.8 - 5.13 on baseline reports, and Annex 3). Where the review establishes that additional baseline data is required, the operator shall submit proposals for undertaking further intrusive sampling (to ensure that all areas containing potential hazardous substances are assessed) together with a proposed date for submission of an updated baseline report. Any updated site report shall include a monitoring plan (for the testing of soil every 10 years and groundwater every 5 years) in consideration of condition 3.1.5 of this permit unless demonstration can be made that this is not required.	

IC4: assessment of water discharges

This improvement condition is set to require the Operator to provide information on the volume and nature of any water discharges leaving the site and going direct to the environment without any treatment. This includes road drainage into the manhole near the Goods Vehicle entrance which is used to sample W2. Due to the issues in the receiving water catchment (the Poulter catchment), we wish to establish the nature of any relevant discharges from the installation and ensure any impact is minimised. This IC has also been set for other Operator of this installation.

The Operator shall undertake an assessment of all untreated surface water discharges, and provide a written report to the Environment Agency. The report shall include, but not be limited to: • Location of all water discharges leaving the area of installation covered by this permit, including the W2 outfall. • Details of controls in place to prevent, and where that is not practicable, minimise the impacts from such discharges, prior to release. • Characterisation of any discharges not receiving treatment prior to release to watercourse. • An updated detailed drainage plan for the area of installation covered by this permit. Where it is identified that appropriate measures or controls are not in place to minimise the impacts of discharges, the operator shall provide either: a) proposed measures for isolating discharges from this site (in order to prevent, or where not practicable, minimise emissions), OR b) proposed measures for monitoring and sampling all discharges prior to leaving the Installation, including flow measurement. The report shall be submitted to the Environment Agency for written approval. The Environment Agency may impose additional requirements, such as monitoring, sampling and emission limits, in response to this improvement condition.	15 Oct 2019 (6 months from variation issue)

IC5: Characterisation of emissions to water

Due to the issues of water quality in the receiving Poulter catchment, the EA would like to have the discharges from the installation fully characterised and assessed for risk to the environment. This includes parameters which may be linked to colliery spoil, such as chloride, sulphate and metals. As the Poulter catchment has had zinc failures, we have included monitoring of zinc in the watercourses upstream and downstream of all discharges.

The operator shall carry out a programme of monitoring in order to fully characterise the discharges from release points W1 – W4 (table S3.1). The monitoring shall be undertaken at monthly intervals for a 12 month period. Testing shall include, but not be limited to, the following determinands: • metals: zinc (total & dissolved), potassium (total), sodium (total), • total metals, • ammonia, • BOD, • phosphate, • sulphate, • chloride, • conductivity, • alkalinity, • dissolved oxygen (field), • pH, and • total and dissolved zinc in the receiving watercourse, both upstream and downstream of the discharge point. Following completion of the monitoring programme, the operator shall undertake a risk assessment (or modelling where required) in accordance with EA guidance on the Gov.uk website. Where appropriate, background data collected for zinc shall be utilised within the risk assessment. A written report detailing the results from the monitoring programme and findings from the risk assessment (or modelling) shall be submitted to the Environment Agency. The report shall include proposals for any additional measures and improvements that are required in order to prevent, and where not practicable, minimise emissions, together with proposed timescales for their implementation. The Environment Agency may impose additional controls in relation to these discharges where it deems these are necessary.	31 July 2020 (15 months from variation issue)

Annex 3: Review and assessment of changes that are not part of the BAT Conclusions derived permit review.

1. Change of Installation name

The installation name has been changed from Whitwell Quarry to **Whitwell Quarry Lime Works**, in order that the name reflects the activity for which the site is permitted, as well as the location. This is in line with our approach to designating installation names. Note that as a multi-operator installation, there are two permits with the same installation name as the name has also been updated in the other permit relating to this installation.

2. New Style permit

There has not been a consolidated variation to the permit since the original PPC permit was issued in March 2004. The style of permit was therefore very old. This revised permit is now in the current standard template with a significantly modified layout. The new layout includes:

- An updated installation description in a format consistent with the other cement and lime sector permits. We have included additional information such as the installation NGR, kiln production capacity, details of process wastes and emissions to air and water, and local sensitive receptors.
- Template permit conditions for Management, Operations, Emissions and Monitoring and Information (including reporting and notifications).
- Schedules 1 – 6 specifying the bespoke aspects of the permit, such as the permitted Activities (Table S1.1), improvement conditions (Table S1.3), Emissions and monitoring (Schedule 3), reporting requirements (Schedule 4), Interpretation (Schedule 6) and Site plan (Schedule 7).
- The standard condition for a Multi-Operator installation (1.5 and 2.2.1).

This variation also includes the latest IED permit template conditions: 1.4.1 (waste), 3.1.3 (soil and groundwater monitoring) and 4.3.1 (notifications).

Section 11 “Written agreement to changes” is now incorporated into condition 4.3.5.

Fire Prevention Plan (FPP) conditions have not been included as this Operator does not stored or use combustible waste. The other permit for this Installation, EPR/BL3269IH, does however contain the FPP template conditions.

A number of non-consolidated variations have been issued within the past 4 years, and this permit consolidates all previous variations.

3. Schedule 1 Table S1.1 Activities

We have reviewed Table S1.1 for all CLM sector permits, to ensure these accurately reflect the activities on each site.

We have reviewed and revised Tarmac’s Whitwell Quarry permit Table S1.1, specifically:

- Amended the limits of the listed activity s3.5 B(a) to cover only the non-kiln stone processing, which goes off site as aggregate, and reworded the activity description. This activity is not directly associated to kiln operation and

therefore is included as a listed activity in its own right. Preparation of kiln feed stone is a directly associated activity of the main listed activity at the site – producing lime s3.1 A(1)(b).

- Added a Directly Associated Activity for raw materials storage, handling and preparation. This covers the preparation of kiln feed stone and any chemicals, including fuel, used within the Operator's installation.
- Removed the DAA "Maglime plant" which is no longer operational.
- Added a separate listed activity for discharge to controlled water from the quarry sumps (via W1, W3 and W4). These discharges are not directly associated with the main listed activity for the site, the lime kilns, so need including in their own right
- Amended the DAA for water discharge to controlled water so that it covers only discharge via emission point W2, which takes all the drainage from the lime kiln area of site (via settlement).
- Amended the Limits of Specified Activity for all activities to ensure they are clearly defined.

The amended Table S1.1 is reproduced below with new and revised text identified by shaded sections:

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity**
Section 3.5 part B(a)	Crushing, grinding, size reduction and screening of calcium magnesium carbonate (Dolomite)	From the recovery of stone from the quarry floors, the crushing, any washing and screening using mobile plant through to storage and transport off site.
Directly Associated Activity		
All raw materials storage, handling and preparation	Raw materials receipt, preparation and bulk storage	From the recovery of Dolomite from the quarry floor through transport, storage, crushing, washing and screening in fixed plant, to bulk storage in kiln feed stockpile for supply to lime kilns regulated under permit ref EPR/BL3269IH for listed activity S3.1 A(1)(b). Receipt, storage and use of chemicals including fuel and oils.
Water discharge to controlled water	Management of site drainage and process water	From collection of water arising from groundwater ingress and surface water drainage, treatment by settlement and any reuse within site activities, through to discharge to controlled waters at emission point reference W2.
Other listed activities		
Water discharges to controlled water	Management of site drainage and quarry water	From collection of water arising from groundwater ingress and surface water drainage, the settlement in quarry sumps and reuse of water through to discharge to controlled waters at emission point reference W1, W3 and W4.

4. Schedule 3 Emissions & monitoring

We have added conductivity as a parameter to be measured at all 4 water discharge points following some environmental monitoring in the catchment carried out in 2018, which showed high conductivity readings. No limit is set.

We have also clarified that metals monitoring at W4 is for total (not dissolved) cadmium and for zinc, which is a parameter of concern in the catchment, we have specified monitoring for both total and dissolved zinc, which will provide useful data for water quality purposes. The numerical limit is for total zinc.

5. Schedule 5 Notification form

Variation V003, issued in July 2015, updated the original permit with certain IED requirements, such as the requirement for "immediate" notification (condition 5.1.1 and the notification form). The notification form, now Schedule 5, has been amended through this variation to "*notified within 24 hours*" rather than "immediately". This is in line with all other cement and lime permits. Notification is still required immediately under condition 5.1.1, however submission of a followup Sch 5 form is not required "immediately".

6. Site condition and IED compliance

Question 4 of the Regulation 60 Notice requested provision of information relating to site condition, to ensure that the requirements of IED article 22(2) are fulfilled.

The Operator provided a summary report as part of their response to the Notice, submitted 7 January 2015. We have assessed the summary report, along with the original data and reports and have concluded that although baseline groundwater quality monitoring data exists for the site, soil baseline data has not been collected as part of the IPPC site reports.

The EA requires confirmation on the locations of bulk liquid storage of hazardous substances within the permit boundary, the condition of any storage tanks on site, whether tanks have been de-commissioned and replaced since 2001 and whether there is any visual or olfactory evidence of contamination around these tanks. Improvement conditions IC2 and IC3 are set to require the Operator to provide the information we require.

End of Decision Document.