

Environment Agency permitting decisions

Variation

We have decided to issue the variation for Cauldon Cement Plant operated by Lafarge Cauldon Limited.

The variation number is EPR/TP333AW/V004.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Description of the changes introduced by the Variation

This was submitted and determined as a normal variation.

This variation amends the carbon monoxide (CO) emission limit value (ELV) at emission point A31 from the main stack on the preheater tower. The ELV is amended from 2,200 mg/m³ to 5,000 mg/m³ within table S3.1.

A footnote relating to the hydrogen chloride limit has also been added to table S3.1 as it was omitted from a previous variation in error.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Structure of this document

- Key issues
- Annex 1 the decision checklist

Emissions to air

This variation amends the carbon monoxide (CO) emission limit value (ELV) at emission point A31 from the main stack on the preheater tower. The ELV is increased from 2,200 mg/m³ to 5,000 mg/m³ within table S3.1.

The shale that is used as a raw material at the Cauldon Cement Plant is from their own quarry. Carbon monoxide emissions are high as a result of the organic content of the shale and this has resulted in the proposal for an increase in the CO limit at the plant. The applicant has stated that using an alternative source of shale is not viable. This is due to associated costs and transportation requirements.

Combustion efficiency at the plant has been monitored and reported on via site regulation. The operator has stated meeting the nitrogen dioxide ELV is challenging if the current CO ELV has to be met i.e. if there is a greater carbon monoxide to carbon dioxide conversion during combustion then there will be an associated increase in thermal NO_x.

The applicant submitted air quality dispersion modelling with their application to model potential risks to human health. This modelling did not assess the predicted environmental impact of the plant with an ELV of 5,000 mg/m³ and only considered potential impact from an ELV of 3,000 mg/m³ or 10/000 mg/m³. Our Air Quality Modelling and Assessment Team (AQMAU) carried out sensitivity checks on the modelling to assess the proposed amended limit.

Based on the model output, an ELV for CO of up to approximately 7000 mg/m³ would be likely to result in an insignificant process contribution (PC) for potential impacts on human health i.e. less than 1% of the relevant Air Quality Standard. We therefore consider that the proposed 5,000 mg/m³ will provide a high level of protection for human health.

Habitats

There is no ecological environmental assessment level (EAL) for carbon monoxide and therefore this has not been assessed during this variation determination.

Annex 1: decision checklist

This document should be read in conjunction with the application, supporting information and permit/notice.

Aspect considered	Justification / Detail	Criteria met
		Yes
Receipt of submission		
Confidential information	A claim for commercial or industrial confidentiality has not been made.	✓
Consultation		
Scope of consultation	The consultation requirements were identified and implemented. The decision was taken in accordance with Regulatory Guidance Note (RGN) 6 High Profile Sites, our Public Participation Statement and our Working Together Agreements. For this application no consultation was required	✓
Operator		
Control of the facility	We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with Environmental Permitting Regulations RGN 1 Understanding the meaning of operator.	✓
European Directives		
Applicable directives	All applicable European directives have been considered in the determination of the application.	✓
The site		
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.	✓
Biodiversity, Heritage, Landscape and Nature Conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. See key issues section for more information. We have not formally consulted on the application. The decision was taken in accordance with our guidance.	✓
Environmental Risk Assessment and operating techniques		
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility.	✓

Aspect considered	Justification / Detail	Criteria met
		Yes
	<p>The operator's risk assessment is unsatisfactory and required additional Environment Agency assessment to make up the shortfall.</p> <p>See key issues section for more information.</p> <p>The assessment shows that, applying the conservative criteria in our guidance on Environmental Risk Assessment, emissions of carbon monoxide based on the revised ELV may be categorised as environmentally insignificant.</p>	
The permit conditions		
Incorporating the application	<p>We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.</p> <p>These descriptions are specified in the Operating Techniques table in the permit.</p>	✓
Emission limits	<p>We have amended the ELV for carbon monoxide specified in the permit. See key issues section for further information.</p>	✓
Monitoring	<p>The monitoring or reporting requirements specified in the permit have not been amended through this variation.</p>	✓
Operator Competence		
Environment management system	<p>There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conditions. The decision was taken in accordance with Regulatory Guidance Note 5 on Operator Competence.</p>	✓