

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/BR8832IJ
The Operator is: Caparo Merchant Bar Plc
The Installation is: Scunthorpe Bar and Light Section Mills
This Variation Notice number is: EPR/BR8832IJ/V002

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 of updated decisions on BAT conclusions.

We have reviewed the permit for this installation against the revised BAT Conclusions for the iron and steel production industry sector published on 8th March 2012 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 ('BAT Conclusions') for Iron and Steel Production as detailed in document reference 2012/135/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. 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 philosophy 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.

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

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 that updates the whole permit.

We consider that, in reaching that 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 17/12/2013 requiring the Operator to provide information to demonstrate how the operation of their installation currently meets, or 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 08/03/2016 which will then ensure that operations meet the revised standard, or
- justifies why standards will not be met by 08/03/2016, 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 requested 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 27/03/14.

We considered it was in the correct form and contained sufficient information for us to begin our determination of the permit review.

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 Addition of directly associated activity

The handling and temporary storage of mill scale is now included in the permit. The operator has taken steps to prevent pollution of the environment or harm to human health from this activity. We consider the best available techniques are being used to manage this waste stream and the activities can be included in the permit as requested.

3 The legal framework

The Consolidated Variation Notice will be issued, under Regulation 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 Iron and Steel, were published by the European Commission on 8th March 2012. There are 95 BAT Conclusions. 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.

Caparo operate hot rolling mills to produce merchant bar. The process of hot rolling requires the raw material billets to be reheated in a reheat furnace that can be fired by coke oven gas or syngas and then to be continuously rolled, cut into customer lengths and bundled before being loaded onto road trailers and despatched.

The re-heating of billets prior to rolling is necessary to form the product range required. This gives rise to releases of SO₂, NO_x, CO and CO₂ and minor amounts of particulates. These emissions do not have a significant impact on local air quality.

There are no emissions to water. The water used for the cooling of the rolls is re-circulated around the plant or passed back to the main operator Longs Steel UK Limited for treatment in the effluent treatment plant.

Therefore only the following BAT conclusions are relevant and have been addressed.

- All of Section 1.1 General BAT Conclusions that is BAT conclusions 1 to 18 inclusive.

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

NA Not Applicable
CC Currently Compliant
FC Compliant in the future (within 4 years of publication of BAT conclusions)
NC Not Compliant

Annex 1: decision checklist regarding relevant BAT Conclusions

BAT Conclusion No	Summary of BAT Conclusion requirement	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
General BAT			
1	BAT is to implement and adhere to an environmental management system (EMS)	CC	Environmental Management System (EMS) is in place. BAT is achieved.
2	BAT is to reduce thermal energy consumption by using a combination of techniques.	CC	This is a dewatering activity there is little scope to recover energy. BAT is achieved.
3	BAT is to reduce primary energy consumption by optimisation of energy flows & optimised utilisation of the extracted process gases such as coke oven gas.	CC	The reheat furnaces on site are fuelled by coke oven gas or synthetic gas from the Integrated Steelworks.
4	BAT is to use desulphurised and dedusted surplus coke oven gas and dedusted blast furnace gas and basic oxygen gas (mixed or separate) in boilers or in combined heat and power plants to generate steam, electricity and/or heat using surplus waste heat for internal or external heating networks, if there is a demand from a third party.	CC	Furnaces on site are fuelled by coke oven gas or synthetic gas from the Integrated Steelworks. The site doesn't operate boilers or generate steam, so the use of combined heat and power is not suitable for the activities on site

BAT Conclusion No	Summary of BAT Conclusion requirement	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
5	<p>BAT is to minimise electrical energy consumption by using one or a combination of the following techniques:</p> <p>I. power management systems</p> <p>II. grinding, pumping, ventilation and conveying equipment and other electricity-based equipment with high energy efficiency.</p>	CC	Energy management is part of the EMS
6	<p>BAT is to optimise the management and control of internal material flows in order to prevent pollution, prevent deterioration, provide adequate input quality, allow reuse and recycling and to improve the process efficiency and optimisation of the metal yield.</p>	NA	There are no material flows
7	<p>BAT is to select appropriate scrap qualities and other raw materials.</p>	NA	Scrap is not used in the processes operated at the installation.
8	<p>BAT for solid residues is to use integrated techniques and operational techniques for waste minimisation by internal use or by application of specialised recycling processes.</p>	CC	Waste waters from the clarifiers are sent back to Longs Steel the main operator of the steelworks for reuse.

BAT Conclusion No	Summary of BAT Conclusion requirement	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
9	BAT is to maximise external use or recycling for solid residues which cannot be used or recycled according to BAT 8, wherever this is possible and in line with waste regulations. BAT is to manage in a controlled manner residues which can neither be avoided nor recycled.	CC	Solid waste arisings from the process such as scale and product trimmings are recyclable within the Iron and Steel Works (scale to sinter plant and product trimmings to the BOS plant operated by Longs Steel).
10	BAT is to use the best operational and maintenance practices for the collection, handling, storage and transport of all solid residues and for the hooding of transfer points to avoid emissions to air & water.	CC	The only solid residues produced is dust from the rolling process which is minimised by water sprays and the dust is captured in the water recirculation system. All waste storage on site takes place within appropriate receptacle to ensure that risks to the environment are minimised. Waste storage areas are regularly inspected as part of the company's EMS..
11	BAT is to prevent or reduce diffuse dust emissions from materials storage, handling and transport	CC	see above BAT10
12	BAT for waste water management is to prevent, collect and separate waste water types, maximising internal recycling &	CC	A water recirculation system is in place with cooling water reused in the process, contamination is kept to Clean scale drops out in the flumes. Oil is

BAT Conclusion No	Summary of BAT Conclusion requirement	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
	using an adequate treatment for each final flow.		skimmed at the flume and at the clarifloculator. Water is filtered by sand filters.
13	BAT is to measure or assess all relevant parameters necessary to steer the processes from control rooms by means of modern computer-based systems.	CC	<p>A computerised production control system is used to control various parameters and ensure optimisation, furnace temperatures are closely controlled to make sure no excess energy is used, and lengths are controlled to ensure optimal use of rolled products. Automatic shutdowns are in place to minimise energy use.</p> <p>Recycling and reuse in in place for off cuts and scale to ensure efficient use of raw materials.</p> <p>Optimisation techniques are formally managed through the quality management system and operational control.</p> <p>A planned preventative maintenance system is in place at the installation.</p>
14	BAT is to measure the stack emissions of pollutants from the main emission sources from all processes included in the Sections 1.2 – 1.7 whenever BAT-AELs are given and in process gas-fired power plants in iron and steel works.	CC	<p>The permit only relates to hot rolling of billets.</p> <p>ELVs are set for SO₂, NO_x, (from A1 and A2 – Reheat furnaces) CO and CO₂ from the combustion of Coke Oven Gas and Syngas are referred to above but no limits set.</p>

BAT Conclusion No	Summary of BAT Conclusion requirement	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
15	For relevant emission sources not mentioned in BAT 14, BAT is to measure the emissions of pollutants from all processes included in the Sections 1.2 – 1.7 and from process gas-fired power plants within iron and steel works as well as all relevant process gas components/pollutants periodically and discontinuously	CC	Due to the batch nature of production, quarterly monitoring of emissions of SO ₂ and NO _x is undertaken and reported
16	BAT is to determine the order of magnitude of diffuse emissions	CC	There are only minor dust emissions.
17	BAT is to prevent pollution upon decommissioning	CC	A decommissioning plan is in place as part of the site condition report and meets site condition reports and baseline reporting under IED– guidance and templates (H5) and BAT guidance.
18	BAT is to reduce noise emissions from relevant sources in the iron and steel manufacturing processes	CC	Noise management is part of the EMS.
BAT Conclusions for Sinter Plant			
BAT conclusions 19 to 32 inclusive	The sinter plant is operated by Longs Steel; therefore, BAT Conclusions 19 to 32 inclusive are not	NA	BATC 19 to 32 not relevant.

BAT Conclusion No	Summary of BAT Conclusion requirement	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
	relevant for this installation.		
BAT Conclusions for Pelletisation Plants			
BAT Conclusions 33 to 41 inclusive	There are no Pelletisation plants in the U.K. Therefore, BAT Conclusions 33 to 41 inclusive are not relevant for this installation.	NA	BATC 33 to 41 not relevant
BAT Conclusion for Coke Oven Plants			
BAT Conclusions 42-58 inclusive	There are no coke oven plants at the installation. Therefore, BAT Conclusions 42-58 inclusive are not relevant for this installation	NA	BATC 42 to 58 not relevant. The coke ovens are operated by Longs Steel.
BAT Conclusions for Blast Furnaces			
BAT Conclusions 59-74 inclusive	The blast furnaces are operated by Longs Steel. Waste arising from blast furnace operation is handled by Hanson in the dewatering plant. .	CC	BATC 59-74 are not relevant. The blast furnaces are operated by Longs Steel.
BAT Conclusions for Basic Oxygen Steelmaking and Casting			
BAT Conclusions 75-86 inclusive	No BOS and Casting is undertaken.	NA	BATC 75 to 86 not relevant.
BAT Conclusions for Electric Arc Furnace Steelmaking and Casting			
BAT Conclusions 87-95	There are no EAF's at the installation.	NA	BATC 87 to 95 are not relevant.

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.