

Notice of variation with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Tata Steel UK limited

Shotton Works
Deeside
Flintshire
CH5 2NH

Variation application number
EPR/BR7321IK/V006

Permit number
EPR/BR7321IK

Shotton Works

Permit number EPR/BR7321IK

Introductory note

This introductory note does not form a part of the notice

The following notice gives notice of the variation of an environmental permit.

The variation permits the installation of a regenerative thermal oxidiser (RTO) to replace an existing oxidiser that is currently in operation on the No.2 Colorcoat line. The new RTO will significantly reduce natural gas consumption. The impact from emissions to air, noise and odour will remain unchanged. Also as a consequence of this change the emission limit for VOC at point A21 in Table 2.2.2 will change from 50mg/m³ to 20mg/m³ to reflect the mandatory minimum standard set out in the sector guidance note for emissions from new thermal oxidisers;

The variation also incorporates some changes to the permit that have been agreed with the area compliance officer since the last variation. These changes are;

- (1) amendment to Note 1 in table 2.2.2 to reflect a previously agreed change to the reporting requirements for emissions from the thermal oxidisers. The note requires the operator to report oxidiser emissions as actual oxygen, not corrected.
- (2) removal of the requirement to monitor for Iso cyanates from emission point A21;
- (3) removal of the requirement to monitor volatile organic carbon at emission point A22 from table 2.10.1. Solvent emissions are now calculated via a mass balance calculation.

The schedules specify the changes made to the original 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 BR7321	Duly made 10/07/03	
Response to request for information	12/12/03	
Permit determined EPR/BR7321IK/A001	Issued 12/03/04	
Application for variation BP3835MQ (EPR/BR7321IK/V002)	Received 05/09/06	
Additional information		Received 07/09/06
Variation Notice EPR/BR7321IK/V002	Issued 10/10/06	
Application for variation QP3838UM (EPR/BR7321IK/V003)	Received 25/04/07	
Additional information		Received 18/05/07
Variation Notice EPR/BR7321IK/V003	Issued 04/06/07	
Application for variation XP3235GL (EPR/BR7321IK/V004)	Received 13/10/08	
Additional information		Received 10/12/08
Variation Notice EPR/BR7321IK/V004	Issued 17/12/08	
Application for Partial Surrender XP3730KG (EPR/BR7321IK/S005)	Duly made 05/05/09	
Additional information		Received 30/07/09
Partial Surrender Notice EPR/BR7321IK/S005	Issued 31/07/09	
Received notification of change of company name	29/09/10	
Issued updated permit changes to show change of company name	02/11/10	
Application for variation EPR/BR7321IK/V006	Received 05/09/11	
Variation Notice EPR/BR7321IK/V006	Issued 11/11/11	

End of introductory note

Notice of variation

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

Permit number
EPR/BR7321IK

issued to:
Tata Steel UK Limited ("the operator")

whose registered office is

30 Millbank
London
SW1 4WY

company registration number **02280000**

to operate a regulated facility at

Shotton Works
Deeside
Flintshire
CH5 2NH

to the extent set out in the schedules.

The notice shall take effect from

Name	Date
	11/11/2011

Anne Nightingale
Authorised on behalf of the Environment Agency

Schedule 1 – conditions to be deleted

None

Schedule 2 – conditions to be amended

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

Table 2.1.1 is amended to include the operating techniques described in variation application EPR/BR7321IK/V006. The amended table reads as follows;

Table 2.1.1: Operating techniques		
Description	Parts	Date Received
Application	Chapter 2 and Chapter 7 of Annex 6, Annex 7, Annex 9, Annex 10, Annex 11, Annex 12 and Annex 16.	10 th July 2003
Application for variation	All	5 th September 2006
Additional information	All	7 th September 2006
Application for variation	All	25 th April 2007
Additional information	All	21 st May 2007
Application for variation	All	13 th October 2008
Additional information	All	10 th December 2008
Application for variation (EPR/BR7321IK/V006)	All	5 th and 7 th September 2011

Table 2.2.1 is amended to include reference to the new RTO (A21) on No.2 Colorcoat line.

The amended table reads as follows;

Table 2.2.1 : Emission points to air		
Emission point reference or description	Source	Location of emission point
A1 Package Boiler House	Package Boiler No.1	Point A1 on site plan 307656
A2 Package Boiler House	Package Boiler No.2	Point A2 on site plan 307656
A3 Package Boiler House	Package Boiler No.3	Point A3 on site plan 307656
A4 Package Boiler House	Package Boiler No.4	Point A4 on site plan 307656
A5 Coatings 2 Boiler House	Steam Boiler No.1	Point A5 on site plan 307656
A6 Coatings 2 Boiler House	Steam Boiler No.2	Point A6 on site plan 307656
A7 Coatings 2 Boiler House	High Pressure Hot Water Boiler No.1	Point A7 on site plan 307656
A8 Coatings 2 Boiler House	High Pressure Hot Water Boiler No.2	Point A8 on site plan 307656
A9 Warehouse Bay 7	High Pressure Hot Water Boiler No.1	Point A9 on site plan 307656
A10 Warehouse Bay 7	High Pressure Hot Water Boiler No.2	Point A10 on site plan 307656
A12 No.1 Colorcoat line	Regenerative thermal oxidiser (original)	Point A11 on site plan 307656
A12a No.1 Colorcoat line	Regenerative Thermal Oxidiser (replacement)	RTO Stack on fig. 1.2 of application for variation
A13 No.1 Colorcoat line	Coater House Extraction LEV	Point A13 on site plan 307656
A14 No.1 Colorcoat line	Wash Tank Extraction LEV	Point A14 on site plan 307656
A15 No.1 Colorcoat line	Paint Kitchen Extraction LEV	Point A15 on site plan 307656
A16 No.1 Colorcoat line	Pre Clean Extraction LEV	Point A16 on site plan 307656
A17 No.1 Colorcoat line	Chromate Scrubber	Point A17 on site plan 307656
A21 No.2 Colorcoat line	Thermal Oxidiser Unit (original) ^{Note 1/} Regenerative Thermal Oxidiser Unit (replacement)	Point A21 on site plan 307656
A22 No.2 Colorcoat line	Paint Kitchen Extraction LEV	Point A22 on site plan 307656
A23 No.2 Colorcoat line	Pre Clean Extraction LEV	Point A23 on site plan 307656

Table 2.2.1 : Emission points to air

A24 No.2 Colorcoat line	Chromate Scrubber	Point A24 on site plan 307656
A31 No.5 Galvanising line	Direct Fired Heater Stack (waste heat boiler not used)	Point A31 on site plan 307656
A32 No.5 Galvanising line	Direct Fired Heater Stack (including waste heat boiler)	Point A32 on site plan 307656
A33 No.5 Galvanising line	Radiant Tube Furnace Stack	Point A33 on site plan 307656
A34 No.5 Galvanising line	Chromate Extraction	Point A34 on site plan 307656
A35 No.6 Galvanising line	Direct Fired Heater and Radiant Tuber Furnace Stack	Point A35 on site plan 307656
A36 No.6 Galvanising line	Chromate Extraction	Point A36 on site plan 307656
A41 Effluent Plant	Lime Slaker Vents	Point A41 on site plan 307656

Note 1: Reference to Thermal Oxidiser Unit (original) to be removed on confirmation of the units decommissioning.

Table 2.2.2 is amended to:

- (a) vary the emission limit for Volatile Organic Carbon at emission Point A21 from 50mg/m³ to 20mg/m³ ; and
- (b) remove the requirement for Iso cyanates monitoring at emission point A21.
- (c) Note 1 is amended to include a specific requirement for reporting emissions from the thermal oxidisers.

The amended table reads as follows;

Table 2.2.2 : Emission limits to air and monitoring				
Emission point reference	Parameter	Limit (including Reference Period)^{note 1}	Monitoring frequency	Monitoring method
A1 to A10	Oxides of Nitrogen (as NO ₂)	300 mg/m ³ ^{note 2}	Annual ^{note 4}	To be agreed with the Environment Agency
A1 to A10	Oxides of Nitrogen (as NO ₂)	450 mg/m ³ ^{note 3}	Annual ^{note 4}	To be agreed with the Environment Agency
A1 to A10	Particulates	50 mg/m ³ ^{note 3}	Annual ^{note 4}	To be agreed with the Environment Agency
A12 ^{Note 6} , A12a & A21	Oxides of Nitrogen (as NO ₂)	100 mg/m ³	Annual	To be agreed with the Environment Agency
A12 ^{Note 6} , A12a, & A21	Carbon monoxide	100 mg/m ³ ^{note 5}	Continuous	To be agreed with the Environment Agency
A12 ^{Note 6} & A12a	Volatile Organic Carbon (as C)	50 mg/m ³	Annual	To be agreed with the Environment Agency
A21	Volatile Organic Carbon (as C)	20 mg/m ³	Annual	To be agreed with the Environment Agency
Note 1: See Section 6 for reference conditions. All thermal oxidiser emissions are to be reported as actual oxygen, not corrected. Note 2: Limit under gas firing conditions Note 3: Limit under oil firing conditions Note 4: Monitoring only to be undertaken if period of operation exceeds 30 days in any year Note 5: Limit based on 24-hour average of 15 minute values Note 6: A12 to be removed from condition on confirmation of decommissioning of redundant thermal oxidiser.				

Table 2.10.1 is amended to remove the requirement to monitoring for Volatile Organic Carbon at emission point A22. The amended table reads as follows;

Table 2.10.1 : Other monitoring requirements				
Emission point reference or source or description of point of measurement	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
A1 to A10	Carbon monoxide (mg/m ³)	Annual	ISO 12039	Under gas firing conditions.
A1 to A10	Carbon monoxide (mg/m ³)	Annual	ISO 12039	Under oil firing conditions if period of operation exceeds 30 days in any year.
A1 to A10	Sulphur dioxide (Kg)	Annual	By calculation from sulphur content of fuel oil.	Under oil firing conditions if period of operation exceeds 30 days in any year.
A13, A14 & A15	Volatile Organic Carbon (as C) (mg/m ³)	Annual	BS EN 12619:1999 or BS EN 13526:2001	
A31, A32, A33 & A35	Carbon monoxide (mg/m ³)	Annual	ISO 12039	
A31, A32, A33 & A35	Oxides of Nitrogen (as NO ₂) (mg/m ³)	Annual	ISO 10849	
Effluent Plant Discharge	pH	Daily Sample	Method to be agreed in writing with the Environment Agency.	
Effluent Plant Discharge	Iron (mg/l)	Daily Sample		
Effluent Plant Discharge	Chromium (mg/l)	Daily Sample		
Effluent Plant Discharge	Nickel (mg/l)	Daily Sample		
Effluent Plant Discharge	Zinc (mg/l)	Daily Sample		
Effluent Plant Discharge	Mercury (µg/l)	Every 3 months		

Table S2 in Schedule 2 of the permit is amended to reflect the changes to the monitoring requirements. The amended table reads as follows;

Table S2: Reporting of monitoring data

Parameter	Emission point	Reporting period	Period begins	
Sulphur dioxide (Kg)	A1 to A10	Annually	17/03/04	See Note 1
Oxides of nitrogen (as NO ₂) (mg/m ³)	A1 to A10,	Annually	17/03/04	See Note 2
Carbon monoxide (mg/m ³)	A1 to A10	Annually	17/03/04	See Note 2
Oxides of nitrogen (as NO ₂) (mg/m ³)	A1 to A10	Annually	17/03/04	See Note 3
Particulates (mg/m ³)	A1 to A10	Annually	17/03/04	See Note 3
Carbon monoxide (mg/m ³)	A1 to A10	Annually	17/03/04	See Note 3
Oxides of nitrogen (as NO ₂) (mg/m ³)	A12 ^{Note4} , A12a, A21, A31, A32, A33 & A35	Annually	17/03/04	
Carbon monoxide (mg/m ³)	A12 ^{Note4} , A12a & A21	Annual	17/03/04	
VOCs (mg/m ³)	A12 ^{Note4} , A12a, A13 to A15 & A21	Annual	17/03/04	
Flow (m ³ /day)	W1	Every 3 months	01/04/04	Mean and Maximum
Chemical oxygen demand (mg/l)	W1	Every 3 months	01/04/04	Mean and Maximum
Suspended solids (mg/l)	W1	Every 3 months	01/04/04	Mean and Maximum
pH	W1 & Effluent Plant	Every 3 months	01/04/04	Minimum and Maximum
Iron (mg/l)	W1 & Effluent Plant	Every 3 months	01/04/04	Mean and Maximum
Chromium (mg/l)	W1 & Effluent Plant	Every 3 months	01/04/04	Mean and Maximum
Mercury (µg/l)	W1 & Effluent Plant	Every 3 months	01/04/04	
Nickel (mg/l)	W1 & Effluent Plant	Every 3 months	01/04/04	Mean and Maximum
Zinc (mg/l)	W1 & Effluent Plant	Every 3 months	01/04/04	Mean and Maximum
Ammoniacal Nitrogen (mg/l)	W1	Every 3 months	01/04/04	Mean and Maximum
Water usage		Annually	17/03/04	
Energy usage		Annually	17/03/04	
Waste disposal and/or recovery.		Annually	17/03/04	

Table S2: Reporting of monitoring data

Note 1: calculation from sulphur content of fuel oil and fuel oil consumption.

Note 2: for gas firing conditions

Note 3: for oil firing conditions if period of operation exceeds 30 days in any year

Note 4: A12 to be removed from condition on confirmation of decommissioning of redundant thermal oxidiser.

Schedule 3 – conditions to be added

None