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Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Tata Steel UK Limited

**Trostre Works
Trostre
Llanelli
Carmarthenshire
SA14 9SD**

Permit number
EPR/BX9471IU

Trostre Works

Permit number EPR/BX9471IU

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows:

This permit is a consolidation of two permits held by Tata Steel UK Limited for Trostre Works in Llanelli (the permit for the Tinplate Production Plant and a previously separate permit for the Tin Anode Plant). The main purpose of the activity at the installation is the surface treatment of metals to provide cold rolled and coated steel to various customers. The main works area of the site covers approximately 80 hectares, and is located on a wide, flat coastal plain.

The raw material for the Works consists of rolled steel coils, received by road or rail into the Pickle Line receipt bay. The coils are pickled with sulphuric acid to remove all scale, in preparation for further processing at the cold reduction mill (CRM). The CRM reduces the thickness of the coil to a given size. After cold reduction, lubricant from the CRM process is removed using an electrolytic cleaning method, using caustic solution. The single reduced coil is then sent for batch or continuous annealing, depending on the product being made. After annealing, the material is temper rolled to give the customer the required surface finish and mechanical properties. The installation also processes double-reduced coil, which is sent through the Double Reduction Mill (DRM). The major volume product of the work is tinplate. There are two tin coating lines at Trostre. The tinplating process involves cleaning, pickling, and electrolytic deposition of tin to the required coating weight.

Effluent arising at the installation is treated at a designated effluent treatment plant, then discharged to the Loughor estuary.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of permit EPR/FP3730ZM		
Description	Date	Comments
Application BT6365 for a new permit received	01/11/2002	
Request for further information (RFI) notice issued	23/12/2002	Further site report information required
Request from applicant to extend response period for RFI received	17/01/2003	Extension agreed to 31/03/2003
RFI notice issued	14/03/2003	Further information on the process, its emissions, noise issues and emissions monitoring required
Response to first RFI received	01/04/2003	Response to notice incomplete

Status log of permit EPR/FP3730ZM

Description	Date	Comments
Response to second RFI received	03/04/2003	Response to notice incomplete
RFI notice issued	16/03/2003	Further information on noise issues and site report required
Response to third RFI received	17/04/2003	Satisfactory responses now received to all notices, except for some minor issues on site report
Request for determination extension (RDE) issued	13/05/2003	
Response to RDE received	22/05/2003	Extension to determination period agreed
Letter from the Agency to the applicant issued	23/05/2003	Letter to clarify deficiencies in site report
Response to letter received	17/06/2003	Satisfactory
RDE issued	04/07/2003	
Response to RDE received	08/07/2003	Extension to determination period agreed
Application BT6365 determined and permit issued to Short Bros (Plant) Limited	16/07/2003	
Variation application BV9250 received	Letter requesting extension to Improvement Condition (IC) 9.1 deadline received 17/09/2003	Deadline for completion 19/09/2003
Variation application BV9250 determined and variation notice issued to Short Bros (Plant) Limited	26/09/2003	Extension to IC 9.1 deadline to 17 th October 2003
Transfer application SP3235MM determined and transfer notice and consolidated permit issued to Multiserv Group Limited	27/10/2006	Transfer of previous permit BT6365 from Short Bros (Plant) Limited to Multiserv Group Limited
Transfer application EPR/FP3730ZM/T001 received	Duly made 21/12/2012	
Transfer application EPR/FP3730ZM/T001 determined and transfer notice issued to Tata Steel UK Limited	24/12/2012	Transfer of previous permit SP3235MM from Harsco Metals Group Limited (previously Multiserv Group Limited) to Tata Steel UK Limited
Variation application EPR/FP3730ZM/V002 received	Duly made 24/12/2014	Variation to remove the regenerative thermal oxidiser

Status log of permit EPR/FP3730ZM

Description	Date	Comments
Variation application EPR/FP3730ZM/V002 determined and variation notice issued to Tata Steel UK Limited	07/04/2015	
Variation application EPR/BX9471IU/V006 received	Duly made 20/09/2016	
RFI notice issued	15/12/2016	
Response to RFI received	19/12/2016	
Variation application EPR/BX9471IU/V006 determined and variation notice and consolidated permit issued to Tata Steel UK Limited	11/01/2017	Variation consolidates permit EPR/FP3730ZM with permit EPR/BX9471IU

Status log of the permit EPR/BX9471IU

Description	Date	Comments
Application BX9471IU for a new permit received	Duly made 29/07/2004	
RFI notice issued	22/10/2004	Amended site report required
Response to RFI received	28/01/2005	
RFI notice issued	16/02/2005	Site plans required
Response to RFI received	17/02/2005	
Application BX9471IU determined and permit issued to Corus UK Limited	24/03/2005	
Variation application CP3433LF received	Duly made 12/10/2005	Proposal to change NOx emission limit
Variation application CP3433LF determined and variation notice issued to Corus UK Limited	03/04/2006	
Partial surrender application RP3539LV received	Duly made 12/01/2006	
Variation application KP3232MN received	09/06/2006	Request to incorporate changes to composite sampling of effluent, receipt of oily waste from Pontardulais Coated Metals and excess pickling acid from Port Talbot Works
Partial surrender application RP3539LV determined and partial surrender notice issued to Corus UK Limited	13/12/2006	

Status log of the permit EPR/BX9471IU

Description	Date	Comments
Variation application KP3232MN determined and variation notice issued to Corus UK Limited	13/12/2006	Changes to Improvement Programme and discharges to surface water
Variation application EPR/BX9471IU/V004 received	12/05/2011	
RFI notice issued	08/06/2011	Extra information on PSA testing, status of continuous annealing process (ceased), and iron testing procedure required
Response to RFI received	21/06/2011	
Variation application EPR/BX9471IU/V004 determined and variation notice issued to Tata Steel UK Limited (name change from Corus UK Limited)	24/06/2011	
Variation application EPR/BX9471IU/V005 received	26/09/2011	
Variation application EPR/BX9471IU/V005 determined and variation notice issued to Tata Steel UK Limited	24/06/2011	
Variation application EPR/BX9471IU/V006 received	Duly made 20/09/2016	
RFI notice issued	15/12/2016	
Response to RFI received	19/12/2016	
Variation application EPR/BX9471IU/V006 determined and variation notice and consolidated permit issued to Tata Steel UK Limited	11/01/2017	Variation consolidates permit EPR/FP3730ZM with permit EPR/BX9471IU

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number
EPR/BX9471IU

The Natural Resources Body for Wales ("Natural Resources Wales") authorises,
under regulation 13 of the Environmental Permitting (England and Wales)
Regulations 2016

Tata Steel UK Limited ("the operator"),
whose registered office is

**30 Millbank
London
SW1P 4WY**

company registration number **2280000**
to operate a regulated facility at

**Trostre Works
Trostre
Llanelli
Carmarthenshire
SA14 9SD**

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

Signed

Date

	11th January 2017
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Victoria Seller

Authorised on behalf of Natural Resources Wales

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 green on the second site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1
 - (a) 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 Natural Resources Wales.
 - (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales 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 Natural Resources Wales.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

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 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in tables schedule 3 S3.1 and S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.

- 3.1.4 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 Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales 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 Natural Resources Wales.
- 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 Monitoring

- 3.3.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1 and S3.2
- 3.3.2 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.
- 3.3.3 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 Natural Resources Wales.
- 3.3.4 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 and S3.2 unless otherwise agreed in writing by Natural Resources Wales.

3.4 Odour

- 3.4.1 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 Natural Resources Wales, 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.

3.4.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales 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 Natural Resources Wales.

3.5 Noise and vibration

3.5.1 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 Natural Resources Wales, 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.

3.5.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales 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 Natural Resources Wales.

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 Natural Resources Wales, 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 Natural Resources Wales.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.

- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) 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 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, 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 Natural Resources Wales, 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.
- 4.2.5 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by 31 January each year in respect of the previous year.

4.3 Notifications

- 4.3.1 (a) In the event 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 Natural Resources Wales,
 - (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) in the event of a breach of any permit condition the operator must immediately—
- (i) inform Natural Resources Wales, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event 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 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 Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 Natural Resources Wales 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.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 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) Natural Resources Wales 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 Natural Resources Wales 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, Natural Resources Wales 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 activity	Limits of specified activity
Section 2.3 Part A(1)(a) – Surface treatment of metals and plastics exceeding 30m ³	Pickling of metal strip and cleaning of metal strip on the Pickling Line, Continuous Annealing Process Line, Cleaning Line, No.4 Electrolytic Chromium Coated Steel Line and the No.5 and 6 Electrolytic Tinning Lines	Pickling Line, the Continuous Annealing Process Line, the Cleaning Line, the No.4 Electrolytic Chromium Coated Steel Line and the No.5 and No. 6 Electrolytic Tinning Line tanks only
Section 1.1 Part A(1)(a) – Burning any fuel in an appliance with a rated thermal input of 50 Megawatts or more	Natural gas combustion in the Continuous Annealing Process Line, the Batch Annealing Line and the tin anode furnaces	Continuous Annealing Process Line furnaces, Batch Annealing furnaces and tin anode furnaces only
Section 2.2 Part A(1)(b) – Melting, including making alloys, of non-ferrous metals, including recovered products and the operation of non-ferrous metal foundries where: (i) the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals; and (ii) any furnace (other than a vacuum furnace), bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 or more tonnes	Annealing processes in the Continuous Annealing Process Line and the Batch Annealing Line Manufacture of tin anodes at the tin anode plant	The Continuous Annealing Process Line furnaces and the Batch Annealing Line furnaces only Melting tin in natural gas-fired furnaces for the manufacture of tin anodes
Directly Associated Activity		
Directly Associated Activity	Treatment and disposal of non-hazardous wastes by physico-chemical methods	Effluent Treatment Plant only. Activity may receive, store and use excess pickling acids from Tata Steel UK Limited, Port Talbot Works for use as a raw material in the effluent treatment plant
Directly Associated Activity	Treatment and disposal of hazardous wastes by physico-chemical methods	Effluent Treatment Plant only. Only used QWERL rolling oil, only from CSP Pontardulais or rolling oils used at the installation
Directly Associated Activity	Cold rolling of steel strip	Cold rolling / reversing mills only
Directly Associated Activity	Discharge of treated effluent	Discharge to Loughor Estuary from point W1 only
Directly Associated Activity	Collection, segregation, and temporary storage pending off-site disposal of waste	Dedicated waste handling, storage and disposal areas within installation boundary
Raw materials handling	Receipt, storage and preparation of raw materials	Operations and storage prior to melting process

Table S1.1 Activities

Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Products, and waste products handling	Product and by-product processing and waste handling	Operations (including casting) and storage following tin melting process

Table S1.2 Operating techniques

Description	Parts	Date Received
Application for permit BX9471IU	<u>Proposed activities and abatement</u>	29/07/2004
	Sections 2.1.1 to 2.2.5 in application document and associated diagrams and plans	
	<u>Management techniques</u>	
	Sections 2.3.1 to 2.3.17 in application document	
Application for permit BT6365 (Tin Anode Plant)	<u>Monitoring</u>	01/11/2002
	Sections 2.10.1 to 2.10.7 in application document	
	Sections 2.1 to 2.11 in the application document	
Additional information in response to RFI issued on 14/03/2003 (application for permit BT6365) (Tin Anode Plant)	Variation determined EPR/BX9471IU	03/04/2003
Additional information in response to RFI issued on 16/03/2003 (application for permit BT6365) (Tin Anode Plant)	<u>Noise and vibration</u> The responses given to question 8 on the RFI notice issued on 16/03/2003	17/04/2003
IC1 Submissions	Corus submissions	26/09/2005 and 07/08/2006
IC 3 Submissions	Corus submission dated 31 March 2006 - study into use of Ion exchange technology for Lines 4, 5 and 6	02/04/2006
IC4 Submission	Corus submission - assessment into the recycling or recovery of spent pickling liquors	30/09/2005
IC5 Submission	Corus submission - assess compliance with the Oil Storage Regulations	30/09/2005
IC7 Submissions	Corus submission - assessment to establish the efficiency of the Effluent Treatment Plant Corus submission - additional information	04/01/2006 and 16/01/2006
IC9 Submission	Corus submission including Appendix A - minimising water usage	16/01/2006
IC10 Submission	Corus submission - noise monitoring	30/06/2006
IC11 and IC12 Submission	Corus submission - MCERTS flow at W1 - dated 30 June 2005	06/07/2006

Table S1.2 Operating techniques

Description	Parts	Date Received
IC13 Submission	Corus submission - feasibility study of installing a real-time detector for the analysis of chromium levels in the incoming flume to the Effluent Treatment Plant	30/09/2005
IC15 Submission	Corus submission	04/01/2006
IC16 Submission	Corus submission, dated 14 th February 2007	16/02/2007
IC17 Submission	Corus submission - WTP Efficiency	29/01/2007
IC18 Submission	Corus submission - inspection programme for subsurface structures, dated 2 nd May 2007	04/05/2007
IC19 Submission	Corus submission - feasibility study to reduce the temperature of the final effluent discharged	03/05/2007
IC20 Submission	Corus submission - BOD investigation into effluent, dated 27 th April 2007	02/05/2007
IC21 Submission	Corus submission - study to monitor the effluent discharged from WI for Copper, Nickel and Zinc, dated 1 st February 2007	05/02/2007
IC22 Submission	Corus submission - feasibility assessment of the options available for improving effluent discharge, dated 2 nd January 2008	02/01/2008
IC23 Submission	Tata submission	29/10/2012
Variation application EPR/BX9471IU/V 006	Sections 2.1.1, 3.2, 6.1 and 6.3 in ETL5 REACH permit variation.doc, dated 05/09/2016	20/09/2016

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
-	-

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit) ^[1]	Reference period	Monitoring frequency	Monitoring standard or method ^[2, 3]
A1 Tinplate Works	Scalemaster stack	-	-	-	-	-
A2 Tinplate Works	Acid fume stack	-	-	-	-	-
A3	Main fume exhaust, 5 Stand CRM	-	-	-	-	-
A4	Auxiliary fume exhaust, 5 Stand CRM	-	-	-	-	-
A5	Caustic fume exhaust, Continuous Annealing Product Line	-	-	-	-	-
A6	Furnace stack, Continuous Annealing Product Line	Oxides of Nitrogen as NO ₂	350 mg/m ³	Hourly average	Quarterly	ISO 10849
A8	Batch annealing stack [East]	-	-	-	-	-
A9	Batch annealing stack [West]	-	-	-	-	-
A10	Temper Mill stack	-	-	-	-	-
A11	Main fume exhaust, Double Reduction Mill	-	-	-	-	-
A12	ETL5 process stack	-	-	-	-	-
A13	ECCS 4 process stack	-	-	-	-	-
A15	Cleaning Line stack	-	-	-	-	-
A18	Cooling Tower	-	-	-	-	-
A19	ETL6 process stack	-	-	-	-	-
A20	ETL6 pre-treatment process stack	-	-	-	-	-
A21	ECCS North Wall Vent Point	-	-	-	-	-

Table S3.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (including unit) ^[1]	Reference period	Monitoring frequency	Monitoring standard or method ^[2, 3]
A22	ETL6 Chem-treat process stack/ECCS 4 chromium stack	-	-	-	-	-
A23	ECCS 4/pickler recirculation stack	-	-	-	-	-
A1 Tin Anode Plant [Rear of building, height 9.5m, minimum 3m above edge of roof]	Gas-fired furnace flue from Furnace (melting pot) 1	Oxides of nitrogen (expressed as carbon)	100 mg/m ³	Minimum 4 hour sample period	Annually	-
A2 Tin Anode Plant [Rear of building, height 9.5m, minimum 3m above edge of roof]	Gas-fired furnace flue from Furnace (melting pot) 2	Oxides of nitrogen (expressed as carbon)	100 mg/m ³	Minimum 4 hour sample period	Annually	-

Note 1: See Schedule 6 for reference conditions

Note 2: Or alternative standard or method agreed in writing by Natural Resources Wales

Note 3: Access points for sampling may be fixed rather than permanent if they comply with the requirements of Natural Resources Wales' Technical Guidance Note M1

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method ^[2]
W1 - receiving water is Loughor Estuary at NGR SS5237 9827	Process effluent discharge from effluent treatment plant	Flow	190 litres/second	Daily average	Continuous	As stated in response to IC11
		Temperature	35°C	-	Continuous	^[3]
		pH	5.0 to 10.0	-	Continuous	BS60682.50:1995 ISO 10523:1884
		Suspended solids	60 mg/l	-	Daily composite sample	BS EN 872:1996 BS6068-2.54:1996
		Oil and grease	12 mg/l	-	Daily composite sample	SCA Blue book 77 ISBN 0117517283

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method ^[2]
		Dissolved iron	40 mg/l	-	Daily composite sample	BS ISO 17294-2 :2003 BS6068-2.89:2003
		Total chromium	0.4 mg/l	-	Daily composite sample	BS ISO 17294-2 :2003 BS6068-2.89:2003
		Mercury	0.005 mg/l	-	Monthly	Compliance based on mass balance calculation ^[4]
		Cadmium	0.01 mg/l	-	Monthly	Compliance based on mass balance calculation ^[4]
		Chemical Oxygen Demand (COD) 2 hrs	300 mg/l ^[1]	-	Daily spot sample	SCA Blue book 97 ISBN 0117519154
W2 - receiving water is River Loughor at NGR SS5266 9905	Uncontaminated surface water, East storm water drain	-	-	-	-	-
W3 - receiving water is River Loughor at NGR SS5262 9906	Uncontaminated surface water, West storm water drain	-	-	-	-	-

Note 1: Or as agreed in writing by Natural Resources Wales.

Note 2: EN BS ISO or SCA Blue book or other methods may be used alternatively if agreed in writing by Natural Resources Wales

Note 3: As method agreed in writing by Natural Resources Wales

Note 4: See Schedule 6 for interpretation

Table S3.3 Annual limits		
Substance	Medium	Limit (kg) (Compliance based on mass balance calculation)
Mercury	Water	40 in a year
Cadmium	Water	40 in a year

Schedule 4 - Reporting

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

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen	A6	Quarterly	01/04/2005
Oxides of nitrogen	A1 and A2 Tin Anode Plant	Annually	01/07/2003
Flow	W1	Quarterly	01/04/2005
pH	W1	Quarterly	01/04/2005
Temperature	W1	Quarterly	01/04/2005
Suspended solids	W1	Quarterly	01/04/2005
Oil and grease	W1	Quarterly	01/04/2005
Dissolved iron	W1	Quarterly	01/04/2005
Total chromium	W1	Quarterly	01/04/2005
Mercury	W1	Annual	01/04/2005
Cadmium	W1	Annual	01/04/2005
COD	W1	Quarterly	01/04/2007
Waste disposal and/or recovery, tonnes	Installation	Annually	01/04/2005
Water usage, m ³	Installation	Annually	01/04/2005
Energy usage, MW	Installation	Annually	01/04/2005

Table S4.2: Annual production/treatment

Parameter	Units
Tin-plated steel coil	tonnes
Electrically coated chrome oil	tonnes

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Potable water use	Annually	m ³ used per tonne of product produced
Energy usage	Annually	KWh used per tonne of product produced
Waste disposed	Annually	Tonnes used per tonne of product produced

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form Air1	13/12/2006
Water (excluding sewer)	Form Water1	13/12/2006
Energy	Form Energy1	24/03/2005
Waste	Form R1	24/03/2005
Water usage	Form WaterUsage1	24/03/2005
Mass release to water	Form MassRelease1	24/03/2005
Performance indicators	Form Performance1	24/03/2005

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	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
To be notified within 24 hours	
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) Notification requirements for the breach of a permit condition	
To be notified within 24 hours	
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) In the event 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:		
To be notified within 24 hours		
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

“annually” means once every year

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

“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 Natural Resources Wales 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.

“Compliance based on Mass Balance Calculation” means that for the purposes of demonstrating compliance or non-compliance with a specified limit the release shall be calculated. Annual mass releases for mercury and cadmium shall be calculated from the maximum potential concentration of the metal present as contamination multiplied by the volume of the chemicals used on site during the Year. An allowance may be deducted for any proportion of the chemicals used that can be demonstrated not to have reached the emission point. The concentration of mercury and cadmium shall be calculated from the annual mass release and the volume of effluent discharged during the Year.

“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 limit..

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 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” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

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

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“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 combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- (b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

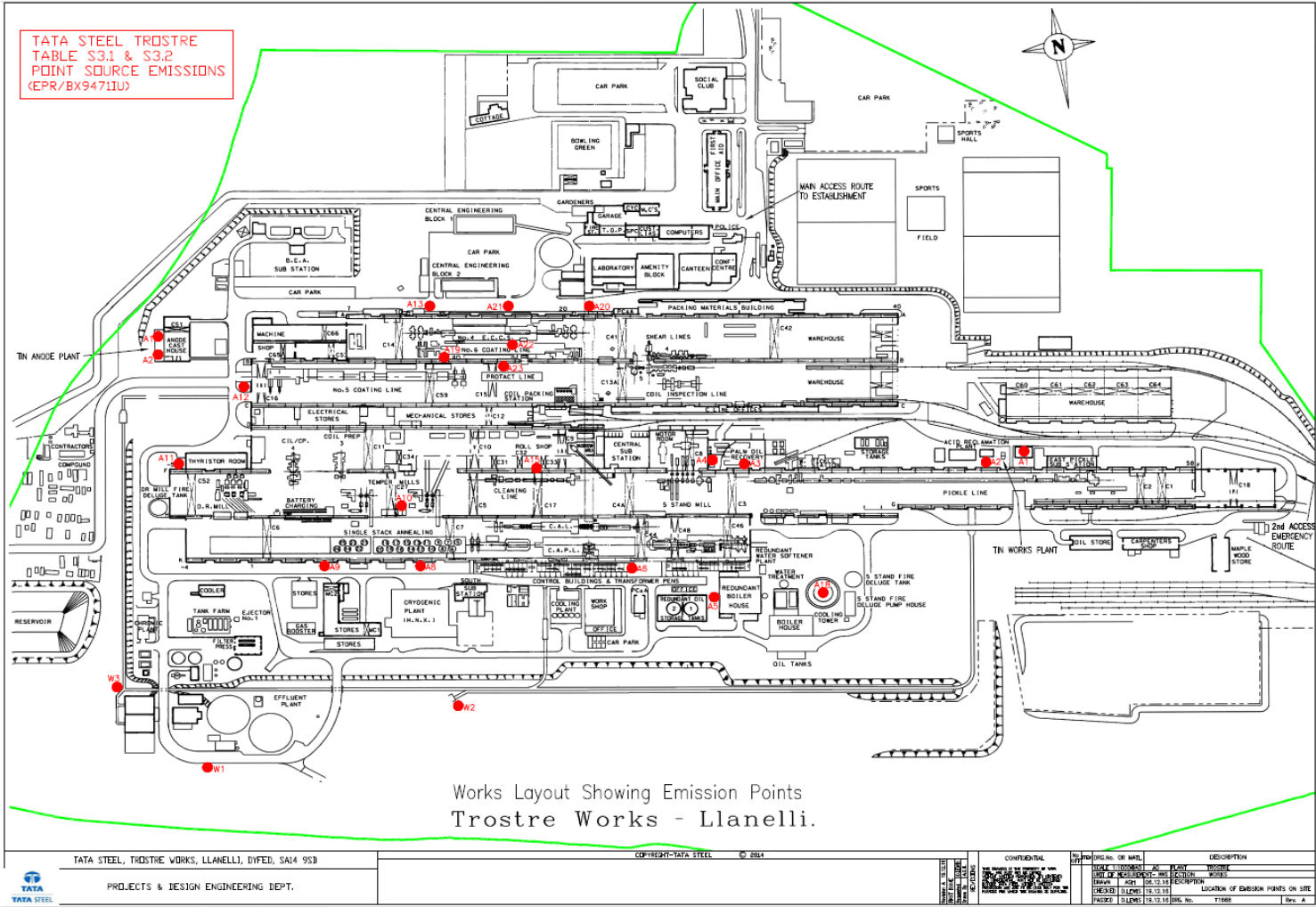
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

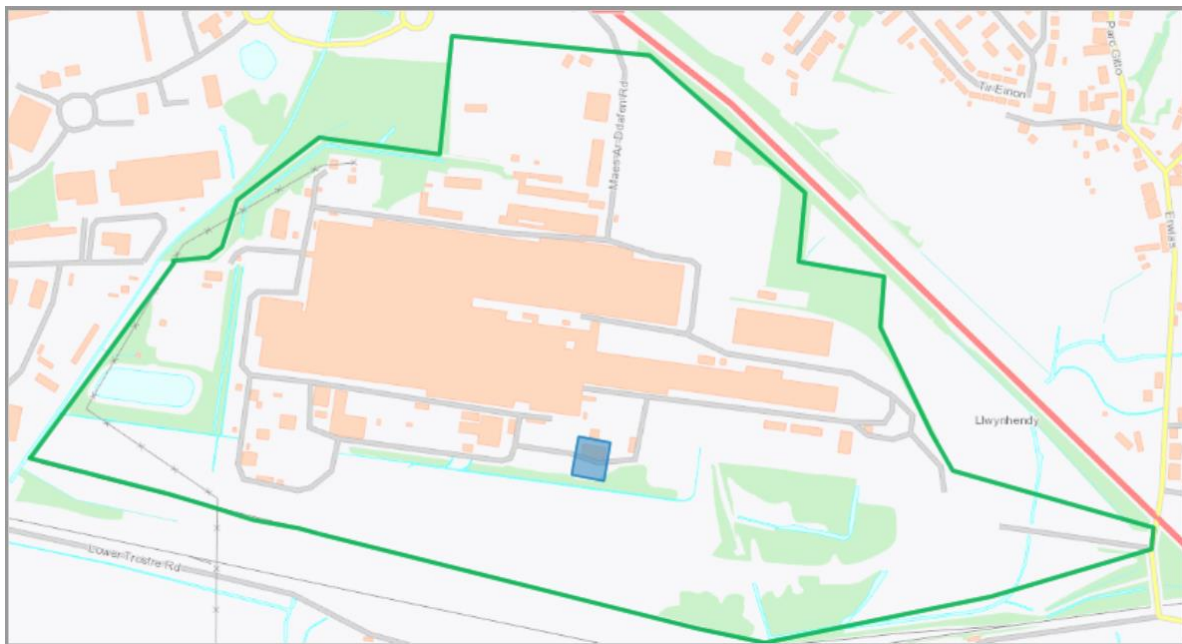
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

Schedule 7 - Site plan





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END OF PERMIT

