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 Works and a previously separate permit for the onsite Boiler House).

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 reducted 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 Reducation 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 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

Status log of the permit EPR/BX9471IU		
Description	**Date**	**Comments**
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	
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	

Status log of the permit EPR/BX9471IU		
Description	**Date**	**Comments**
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
Variation application PAN-002363 received	Duly Made 19/03/2018	Variation to consolidate EPR/BX9471IU/V006 and EPR/JP3439SZ/T004
Variation application PAN-002363 determined and variation notice and consolidated (EPR/BX9471IU/V007)	14/09/2018	Variation consolidates permit EPR/JP3439SZ with permit EPR/BX9471IU using EPR/BX9471IU as the base permit

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
Holly Noble	**14/09/2018**

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 activitiesl

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.

2.3.3 The Boiler House may only be fired on fuel oil for a maximum of 90 days per year.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.

2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

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 in schedule 3 tables 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.

4.3.8 Natural Resources Wales shall be notified of the firing of the Boiler House on fuel oil:

(a) prior to the start of firing operations; and

(b) prior to the cessation of firing operations.

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
Directly associated activity	Boiler House Steam generation	From receipt of raw materials to despatch of products and waste.

Table S1.1 Activities		
Activity listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity**
Directly associated activity	Surface water drainage from boiler house	Handling and storage of site drainage until discharge to effluent treatment plant.
Directly associated activity	Boiler House Water treatment	From receipt of raw materials to dispatch to effluent treatment plant.
Raw materials handling	Receipt, storage and preparation of raw materials	Operations and storage prior to melting process
Raw materials handling	Boiler House Oil storage	From receipt of raw materials to dispatch for use.
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	Proposed activities and abatement Sections 2.1.1 to 2.2.5 in application document and associated diagrams and plans Management techniques Sections 2.3.1 to 2.3.17 in application document Monitoring Sections 2.10.1 to 2.10.7 in application document	29/07/2004
Application for permit BT6365 (Tin Anode Plant)	Sections 2.1 to 2.11 in the application document	01/11/2002
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)	Noise and vibration The responses given to question 8 on the RFI notice issued on 16/03/2003	17/04/2003
Application for permit JP3439SZ	Table 2.2.2.1 'Release Point from Boiler House Activities', Sections 2.2.3 to 2.2.6 inclusive, Drawing in Appendix 4: 'Equipment Layout Arrangement', Table 2.2.1.5: 'Release Point Emissions to Air Abatement Review'	16/02/2005
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

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
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	04/01/2006 and
	Corus submission - additional information	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
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 14th February 2007	16/02/2007
IC17 Submission	Corus submission - WTP Efficiency	29/01/2007
IC18 Submission	Corus submission - inspection programme for subsurface structures, dated 2nd 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 27th April 2007	02/05/2007
IC21 Submission	Corus submission - study to monitor the effluent discharged from WI for Copper, Nickel and Zinc, dated 1st February 2007	05/02/2007
IC22 Submission	Corus submission - feasibility assessment of the options available for improving effluent discharge, dated 2nd January 2008	02/01/2008
IC23 Submission	Tata submission	29/10/2012
Variation application EPR/BX9471IU/V006	Sections 2.1.1, 3.2, 6.1 and 6.3 in ETL5 REACH permit variation.doc, dated 05/09/2016	20/09/2016
Variation application EPR/BX9471IU/V007	Site Plan	14/06/2018

Table S1.3: Improvement programme		
Reference	**Requirement**	**Date**
IC24	(Previously IP1 of permit JP3439SZ) The Operator shall submit to the Agency in writing, a programme of regular testing and inspection of all chemical and oil storage areas commencing with an initial audit. The audit and programme shall include the following: ▪ Inspection of primary, secondary and tertiary containment measures ▪ Inspection of coatings applied to secondary and tertiary containment ▪ Segregation of chemicals dependent upon reactivity The proposed inspection regime shall be approved by the Agency in writing and implemented throughout the installation. A summary of the initial audit shall also be submitted to the Agency for approval with improvements identified as appropriate and time scales for remedial actions to be approved by the Agency.	01/06/06

Table S1.3: Improvement programme		
Reference	**Requirement**	**Date**
IC25	(Previously IP2 of permit JP3439SZ) The Operator shall undertake an assessment of noise from the installation taking into account the requirements of section 2.9 of the Agency Guidance Note IPPC S2.07, 4 October 2004, and IPPC H3 Part 2, Version 2, June 2004. A written report summarising the findings shall be submitted to the Agency, with any improvements identified. A timescale for implementation of any improvements shall be approved by the Agency, including a noise management plan if appropriate.	01/03/06
IC26	(Previously IP3 of permit JP3439SZ) The Operator shall undertake an assessment of subsurface structures and their potential to cause fugitive emissions to surface water and ground water. The assessment will take into account the requirements of section 2.2.5 of the Agency General Sector Guidance Note IPPC S0.01, April 2001. A written report summarising the findings shall be submitted to the Agency. A timescale for implementation of any improvements shall be approved by the Agency.	01/06/06
IC27	(Previously IP4 of permit JP3439SZ) The Operator shall submit a written Closure Plan that shall be agreed with the Agency. The Plan shall have regard to the requirements set out in section 2.11 of General Sector Guidance S0.01, April 2001.	01/06/07
IC28	(Previously IP5 of permit JP3439SZ) The operator shall submit proposals for a monitoring and impact assessment procedure for air emissions from points A1, A2, A3 and A4, to include all fuels used at the installation. The assessment procedure including timescales shall be submitted to the Agency for approval. The Operator shall undertake the assessment following approval of the procedure and timescales by the Agency.	01/01/07
IC30	The operator shall submit to Natural Resources Wales a report for the repair (or alternatively the replacement) of the effluent transmission flume (located on the southern boundary of the main building). On approval of the report, by Natural Resources Wales, the measures outlined in the report shall be implemented to a timescale specified by Natural Resources Wales.	END OCT 2018

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Boiler House fuel oil	Maximum of 0.1% Sulphur content

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air

Emission point ref. & location	Source	Parameter	Limit (including unit) [1]	Reference period	Monitoring frequency	Monitoring standard or method [2, 3]
A1 Tinplate Works [located as shown on the site layout and drainage plan referenced T1668]	Scalemaster stack	-	-	-	-	-
A2 Tinplate Works [located as shown on the site layout and drainage plan referenced T1668	Acid fume stack	-	-	-	-	-
A3 [located as shown on the site layout and drainage plan referenced T1668	Main fume exhaust, 5 Stand CRM	-	-	-	-	-
A4 [located as shown on the site layout and drainage plan referenced T1668	Auxiliary fume exhaust, 5 Stand CRM	-	-	-	-	-
A5 [located as shown on the site layout and drainage plan referenced T1668	Caustic fume exhaust, Continuous Annealing Product Line	-	-	-	-	-
A6 [located as shown on the site layout and drainage plan referenced T1668	Furnace stack, Continuous Annealing Product Line	Oxides of Nitrogen as NO_2	350 mg/m^3	Hourly average	Quarterly	ISO 10849
A8 [located as shown on the site layout and drainage plan referenced T1668	Batch annealing stack [East]	-	-	-	-	-
A9 [located as shown on the site layout and drainage plan referenced T1668	Batch annealing stack [West]	-	-	-	-	-

Table S3.1 Point source emissions to air						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit) [1]**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method [2, 3]**
A10 [located as shown on the site layout and drainage plan referenced T1668	Temper Mill stack	-	-	-	-	-
A11 [located as shown on the site layout and drainage plan referenced T1668	Main fume exhaust, Double Reduction Mill	-	-	-	-	-
A12 [located as shown on the site layout and drainage plan referenced T1668	ETL5 process stack	-	-	-	-	-
A13 [located as shown on the site layout and drainage plan referenced T1668	ECCS 4 process stack	-	-	-	-	-
A15 [located as shown on the site layout and drainage plan referenced T1668	Cleaning Line stack	-	-	-	-	-
A18 [located as shown on the site layout and drainage plan referenced T1668	Cooling Tower	-	-	-	-	-
A19 [located as shown on the site layout and drainage plan referenced T1668	ETL6 process stack	-	-	-	-	-
A20 [located as shown on the site layout and drainage plan referenced T1668	ETL6 pre-treatment process stack	-	-	-	-	-
A21 [located as shown on the site layout and drainage plan referenced T1668	ECCS North Wall Vent Point	-	-	-	-	-

Table S3.1 Point source emissions to air						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit) [1]**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method [2, 3]**
A22 [located as shown on the site layout and drainage plan referenced T1668	ETL6 Chem-treat process stack/ECCS 4 chromium stack	-	-	-	-	-
A23 [located as shown on the site layout and drainage plan referenced T1668	ECCS 4/pickler recirculation stack	-	-	-	-	-
A24 [located as shown on the site layout and drainage plan referenced T1668	Boiler House 1 flue stack	Carbon Monoxide (CO)	-	-	Every 6 months	ISO 12039
		Oxides of Nitrogen as NO_2 [4]	200 mg/m^3	-	Every 6 months	ISO 10849
		Oxides of Nitrogen as NO_2 [5][6]	-	-	Every 12 months	ISO 10849
A25 [located as shown on the site layout and drainage plan referenced T1668	Boiler House 2 flue stack	Carbon Monoxide (CO)	-	-	Every 6 months	ISO 12039
		Oxides of Nitrogen as NO_2 [4]	200 mg/m^3	-	Every 6 months	ISO 10849
		Oxides of Nitrogen as NO_2 [5][6]	-	-	Every 12 months	ISO 10849
A26 [located as shown on the site layout and drainage plan referenced T1668	Boiler House 3 flue stack	Carbon Monoxide (CO)	-	-	Every 6 months	ISO 12039
		Oxides of Nitrogen as NO_2 [4]	200 mg/m^3	-	Every 6 months	ISO 10849
		Oxides of Nitrogen as NO_2 [5][6]	-	-	Every 12 months	ISO 10849
A27 [located as shown on the site layout and drainage plan referenced T1668	Boiler House 4 flue stack	Carbon Monoxide (CO)	-	-	Every 6 months	ISO 12039
		Oxides of Nitrogen as NO_2 [4]	200 mg/m^3	-	Every 6 months	ISO 10849

Table S3.1 Point source emissions to air						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit) [1]**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method [2, 3]**
		Oxides of Nitrogen as NO_2 [5][6]	-	-	Every 12 months	ISO 10849
A28 [located as shown on the site layout and drainage plan referenced T1668	Boiler House steam vent boiler flash vessel	-	-	-	-	-
A29 [located as shown on the site layout and drainage plan referenced T1668	Boiler House steam vent boiler flash vessel	-	-	-	-	-
A30 [located as shown on the site layout and drainage plan referenced T1668	Boiler House steam vent boiler flash vessel	-	-	-	-	-
A1 Tin Anode Plant [Rear of building, height 9.5m, minimum 3m above edge of roof] [located as shown on the site layout and drainage plan referenced T1668	Gas-fired furnace flue from Furnace (melting pot) 1	Oxides of nitrogen (expressed as carbon)	100 mg/m^3	Minimum 2 hour sample period	Annually	-
A2 Tin Anode Plant [Rear of building, height 9.5m, minimum 3m above edge of roof] [located as shown on the site layout and drainage plan referenced T1668	Gas-fired furnace flue from Furnace (melting pot) 2	Oxides of nitrogen (expressed as carbon)	100 mg/m^3	Minimum 2 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

Note 4: Refers to firing on natural gas

Note 5: Refers to firing on oil

Note 6: Annual monitoring (when firing on oil) is only required when boiler operates for a period exceeding 30 minutes, taken on an annual assessment period.

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 ltitres/ second	Daily average	Continuous	As stated in response to IC11
		Temperature	35^0C	-	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
		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	pH	5.0 to 10.0	-	Continuous	
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	Annual	01/07/2003
Carbon Monoxide (CO), mg/m^3	A24	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (gas fired), mg/m^3	A24	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (oil fired), mg/m^3	A24	Annual	01/01/2005
Carbon Monoxide (CO), mg/m^3	A25	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (gas fired), mg/m^3	A25	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (oil fired), mg/m^3	A25	Annual	01/01/2005
Carbon Monoxide (CO), mg/m^3	A26	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (gas fired), mg/m^3	A26	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (oil fired), mg/m^3	A26	Annual	01/01/2005
Carbon Monoxide (CO), mg/m^3	A27	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (gas fired), mg/m^3	A27	Annual	01/01/2005
Oxides of Nitrogen as NO_2 (oil fired), mg/m^3	A27	Annual	01/01/2005
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	Annual	01/04/2005
Water usage, m^3	Installation	Annual	01/04/2005
Energy usage, MW	Installation	Annual	01/04/2005
Notification of Boiler House Oil firing periods	Installation	Every Instance	01/01/2005

Table S4.2: Annual production/treatment	
Parameter	**Units**
Tin-plated steel coil	Tonnes
Electrically coated chrome oil	Tonnes
Boiler House Production of steam	Tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Potable water use	Annual	m^3 used per tonne of product produced
Waste disposed	Annual	Tonnes used per tonne of product produced
Energy usage	Annual	kWh used per tonne of product produced
Boiler House Energy Consumption – Gas	Annual	MWh per Tonne of steam produced
Boiler House Energy Consumption – Electricity	Annual	MWh per Tonne of steam produced
Boiler House Energy Consumption – Oil	Annual	MWh per Tonne of steam produced

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form Air1	14/09/2018
Water (excluding sewer)	Form Water1	14/09/2018
Energy	Form Energy1	14/09/2018
Waste	Form R1	14/09/2018
Water usage	Form WaterUsage1	14/09/2018
Mass release to water	Form MassRelease1	14/09/2018
Performance indicators	Form Performance1	14/09/2018

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.

"*solvent management plan"* is an evidence and calculations framework, used by installations, to demonstrate their compliance with the Annex 7 of the Industrial Emission Directive.

"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.

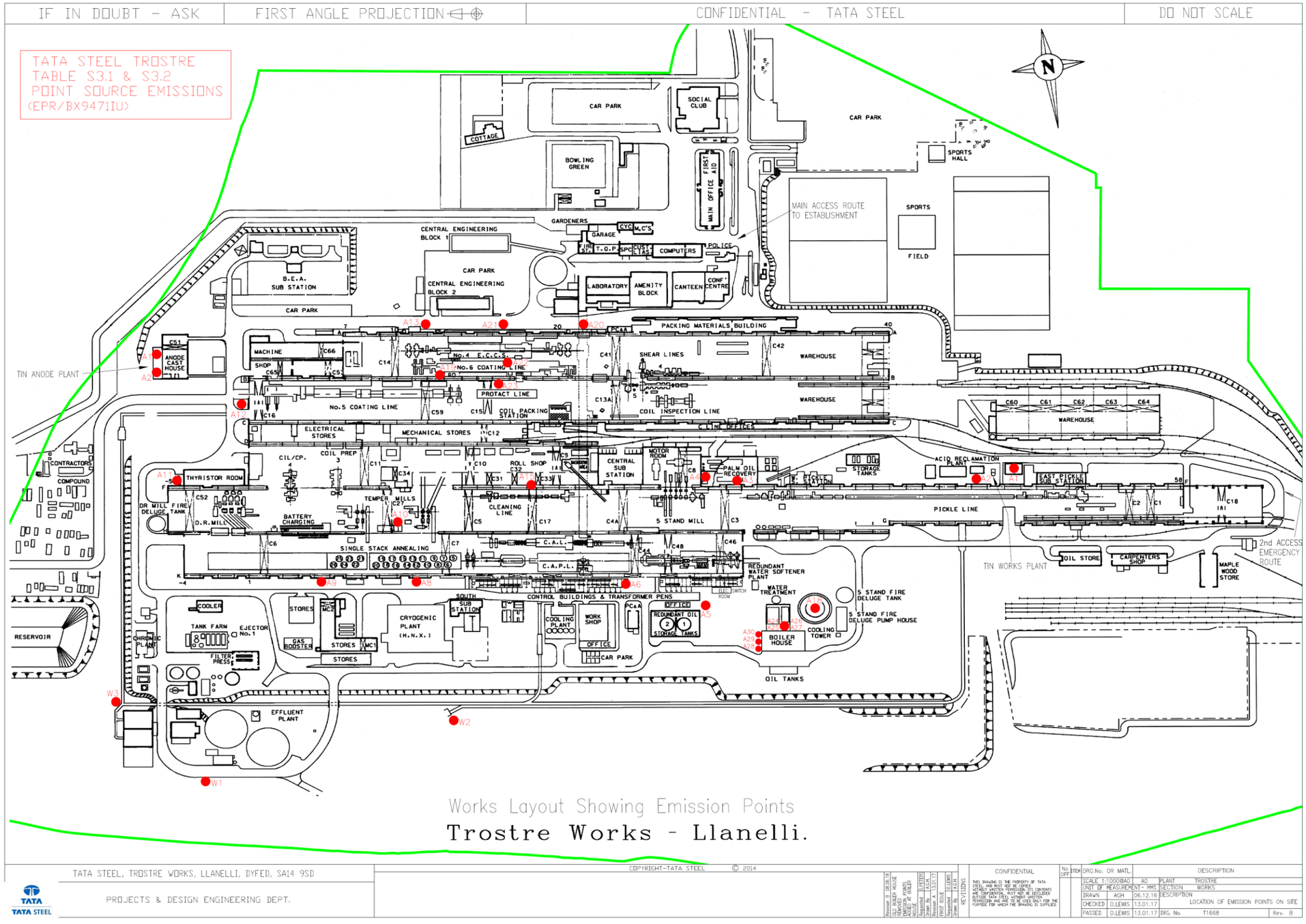
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

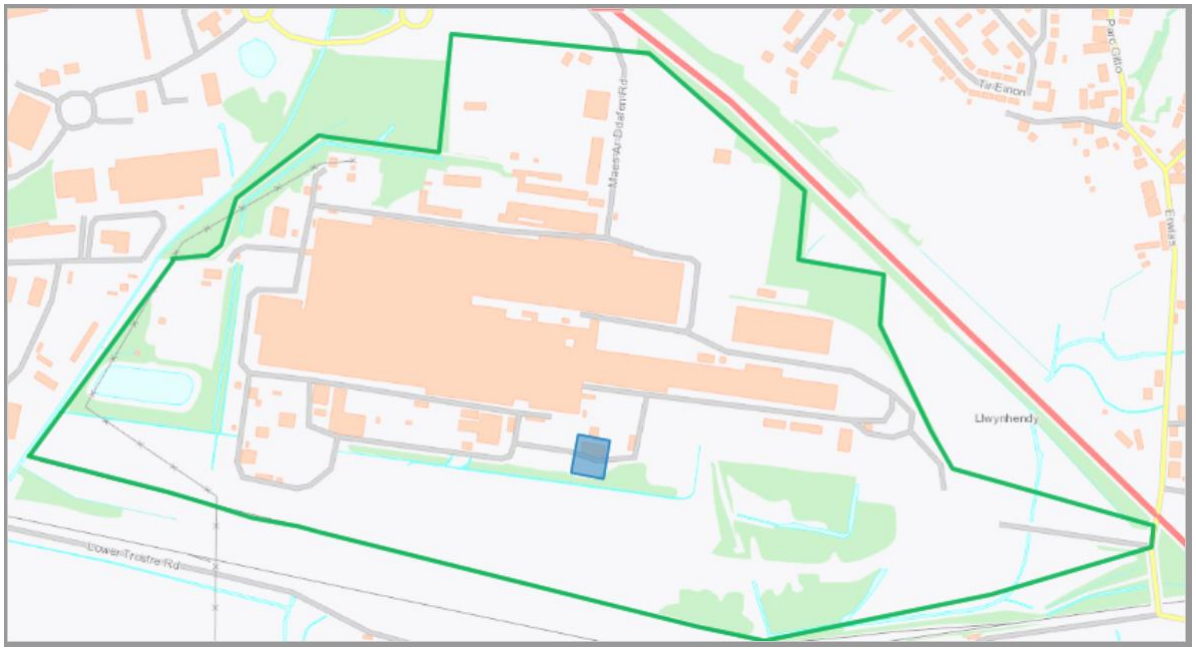
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

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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