

Compliance Assessment Report

Report ID:
CAR_NRW0034631

This form will report compliance with your permit as determined by an NRW officer

Site	Port Talbot Steel Works	Permit Ref	BL7108IM		
Operator/Permit holder	Tata Steel UK Limited				
Regime	Installations				
Date of assessment	06/02/2019	Time in	10:00	Out	12:30
Assessment type	Audit				
Parts of the permit assessed	1 Management; 2 Operations; 3 Emissions and Monitoring; 4 Information				
Lead officer's name	Broom, Mark				
Accompanied by	Cowie, Douglas				
Recipient's name/position	Claire Grainger/ Environment Manager	Date issued	05/04/2019		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

Permit conditions and compliance summary	CCS Category	Condition(s) breached
A1 - Specified by permit	A	
B5 - Infrastructure - Plant and equipment	A	
C2 - General Management - Management system and operating procedures	A	
E1 - Emissions - Air	A	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	A	
G2 - Monitoring and Records, Maintenance and Reporting - Records of activity, site diary/journal/events	A	
G3 - Monitoring and Records, Maintenance and Reporting - Maintenance records	A	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	A	

KEY: See Section 5 for breach categories, suspended scores will be indicated as such.

A = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,

O = Ongoing non-compliance, not scored.

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
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If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

Site description

Tata Steel UK Ltd (Tata Steel) operates an integrated iron and steel works at Port Talbot, Neath Port Talbot. The site is permitted as an installation under the Environmental Permitting Regulations (EPR). Tata Steel has several defined industrial processes which are carried out sequentially across the installation to convert raw iron ores and coal to semi-finished (slab) and finished steel products (such as hot rolled, pickled and oiled, cold rolled and annealed steel). The permit also covers coke making and the reception, stockpiling and blending of raw iron making materials. Four other companies – Cambrian Stone, Harsco Metals, Runtech and ICL – are contracted to undertake their own permitted activities at the steelworks on Tata Steel's behalf.

Purpose of visit/assessment

The United Kingdom operates a Transitional National Plan (TNP) for certain combustion plant under the Industrial Emissions Directive. This plan covers the releases of sulphur dioxide (SO₂), oxides of nitrogen (NO_x) and particulate releases from qualifying Large Combustion Plant (LCP). The purpose of this intervention was to review the operator's **2018 TNP data**, the systems used at Port Talbot steelworks and to verify Tata's annual TNP submissions, if appropriate.

The relevant permit conditions are listed under Sections 1.1, 2.3, 3.1, 3.5, 3.6, 4.1, 4.2, 4.3 and 4.4 of Tata's permit.

Person(s) present

Tata Steel

Claire Grainger
Andrew Townsend
Beverley Jenkins (other matters only)
Mike Launder (TNP only)
Sean Langstone (TNP only)

NRW

Mark Broom
Doug Cowie

TNP annual submission: 2018 overview

Each year the Environmental Regulator is required to verify the TNP submissions prior to emissions trading (TNP Verification).

There are four large combustion plant (LCP) at Port Talbot steelworks that are within the TNP scheme and one boiler that is not (Boiler 3 - A62). A range of fuels are used to fire these boilers e.g. Heavy Fuel Oil (HFO), Blast Furnace Gas (BFG), Coke Oven Gas (COG), Natural Gas (NG) and now Basic Oxygen Steelmaking (BOS) gas. All the Continuous Emission Monitoring Systems

(CEMS) in operation on these boiler plants are MCERTS* approved.

The TNP started on 1 January 2016 and will continue until 1 July 2020. Details of the TNP can be found at gov.uk and on Natural Resources Wales' website.

LCP (Plant id)	TNP reference	PPC release point	Size (MWth input)	BFG	COG	HFO	BOS	NG	CEMS PMs	CEMS SO ₂	CEMS NO _x	CEMS CO	CEMS flow	CMS O ₂	CEMS H ₂ O
Boiler 6&7 (340)	93	A52	268	✓	✓	✓	✓	✓	✓	✓	✓	✗	?	✗	✗
Mitchell Boiler (338)	91	A53	81	✓	✓	✓	✗	✓	✓	✗	✗	✓	?	✓	✗
Boiler A5 (339)	92	A51	50	✓	✓	✓	✓	✓	✓	✗	✗	✓	?	✓	✗
Service Boilers (337)	90	A50	114	✓	✓	✗	✗	✓	✓	✓	✓	✓	?	✓	✓
Boiler 3 (73)	Not in TNP	A62	70	✓	✗	✗	✓	✓	✓	✓	✓	✗	?	✓	✗
Boiler 8 (425)	Not in TNP or built	A68	164	-	-	-	-	-	-	-	-	-	-	-	-
Boiler 9 (426)	Not in TNP or built	A69	164	-	-	-	-	-	-	-	-	-	-	-	-

TNP nominated site officer

Fiona Abbott has now left Tata Steel and Claire Grainger has taken on the role of the nominated (TNP) site officer for the steelworks.

Bob Lewis (Corporate Emissions Trading Manager, Tata Steel UK Ltd) remains the company's UK wide coordinator for the TNP alongside his role managing EU-ETS (emissions trading scheme) returns.

Port Talbot steelworks LCP: 2018 review

Little has changed since last year (2017) in terms of TNP returns for Port Talbot steelworks. Flow rates for LCP waste gases are derived and calculated (using emission factors) rather than measured. For Boiler 5, Boiler 3 and the Mitchell Boiler the water content is inferred from other CEMS information. All boilers have CEMS for Carbon Monoxide (CO) and oxygen (O₂) content.

In previous years, Tata Steel has encountered problems with its CODEL SO₂ and NO_x monitors at A52A (Boiler 6) and A52B (Boiler 7). These problems have been resolved and these monitors are now in stable operation. Tata do not have a maintenance contract with CODEL although they do have a remote log in facility for on line fault diagnosis and adjustment.

The particulate ELV for the Service Boilers was incorrectly set at 20.00 mg/m³ in the last permit variation (V015). This has been corrected to 40.00 mg/m³ in the latest variation (V016).

Lastly, Boiler 3 will benefit from the capability to burn COG from April 2019 onwards.

Invalid monitoring periods

During 2018, Tata Steel detected and notified NRW about two periods of invalid emissions monitoring data in accordance with Condition 3.6.2(a) of the permit:

Boiler 7. In early April 2018 the gaseous CEMS (SO₂, NO_x, CO) and waste gas oxygen monitoring probe for Boiler 7 were critically damaged beyond repair by falling masonry. This

resulted in a period of no data collection until 18/04/18 (oxygen) and mid-June 2018 (SO₂, NO_x, CO), when replacement systems were installed. Calculated emission values (using fuel input data) were used during the interim periods.

Mitchell Boiler. In mid-September 2018, the particulates monitor began displaying sporadic negative readings. This ultimately resulted in a period of invalid data which lasted until a new monitor probe was installed and calibrated on 24 October 2018. The root cause of the negative readings is being investigated by the monitor supplier. Tata were unable to expedite a full investigation more quickly due to safety (access) issues at the Margam B stack.

In both cases, NRW is satisfied that Tata Steel has fulfilled the permit notification requirement and has outlined its plan to rectify these issues.

During 2017, new CEMS were installed at Boiler 3 however a head unit had to be replaced during January 2019. This resulted in a further period of invalid monitoring data for gaseous parameters (SO₂, NO_x & CO). This has also been notified to the regulator in accordance with Condition 3.6.2(a) and Tata Steel has a plan in place to replace the faulty head unit.

Quality assurance

Tata's permit contains a condition (3.6.6) which requires the operator to submit a written report to NRW within 28 days of completion of a measurement equipment check. For LCP, this means submitting a report once a Quality Assurance Level (QAL) check has been completed i.e. within 28 days of the monitoring organisation's final QAL report or the final report for any Annual Surveillance Test (AST) being received by Tata.

QAL2 testing of the boilers has been carried out during November and December 2018 for Boiler 3, the Service Boilers and Boilers 6 & 7. The Mitchell Boiler had its QAL2 test in January 2019. Boiler 5 had its QAL2 (particulate) test in May 2018.

Tata Steel has since provided evidence that QAL2 tests during 2018 were carried out as described during our intervention. An additional QAL2 test report for the Mitchell Boiler should become available during 2019. NRW will review these QAL2 reports more fully during 2019 as part of a separate, focused compliance intervention.

LCP abnormal operations criteria

Tata Steel has outlined start-up, shutdown and abnormal operations criteria for its LCP at Port Talbot steelworks. These criteria have been agreed with NRW and are applied when assessing LCP monitoring data (to help Tata decide if exceedances are notifiable to NRW).

The working document that reflects these abnormal operations criteria was discussed. We agreed this document would benefit from periodic reviews to ensure any changes to Tata Steel's combustion plant and/or operating regimes are accurately captured. An example of this could be the introduction of COG as a boiler fuel on Boiler 3, or any changes in respect of HFO which is currently used as a tertiary boiler fuel. The first review could be undertaken in April 2019 and NRW is happy to participate in this process.

Annual Surveillance Testing and accreditation

Tata Steel continues to use its Group Environment teams based at Swinden Technology Centre, Rotherham to carry out Annual Surveillance Tests (ASTs) for all Port Talbot steelworks LCP. Swinden are accredited to ISO 14181 and are registered with UKAS (valid certificate 045 dated 21 November 2018).

https://www.ukas.com/wp-content/uploads/schedule_uploads/00002/0312Testing Multiple.pdf

TNP and UK LCP Inventory reporting

In previous years the reporting for TNP and non-TNP combustion plant has been unclear. One

example of this was the use of old NERP reporting formats e.g. AAE1. These forms have been replaced by the Joint Environmental Programme (JEP) formats e.g. AR1 & HR1.

As well as continuing to submit quarterly RTA1 forms to the TNP Registry, Tata Steel is now using the JEP reporting forms for their annual non-TNP (LCP) returns. Tata Steel has copied all quarterly TNP and annual LCP returns to NRW's inspecting officers and our mailbox - industryregulation.swwales@cyfoethnaturiolcymru.gov.uk.

The annual AR1 and HR1 forms for all Tata Steel's LCPs do not necessarily need to go to the TNP Registry. These two forms should be sent to the regulator (NRW) before the data is ultimately used to populate the UK LCP Inventory maintained by Defra.

For non-TNP LCP (Boilers 3, 8 & 9), nil returns are required for any boilers that are permitted but not operational during 2018 i.e. Boilers 8 & 9.

The use of confidence intervals was discussed. Tata do not take off confidence intervals from their reported emission concentrations, nor are confidence intervals removed when the tonnage calculations are carried out for their TNP, LCP or EPRTTR submissions. The latter approach is consistent with NRW (and other environmental regulators) guidance. The former approach is not consistent with IED LCP reporting, although it is consistent with how Tata Steel reports all its other emission concentrations (releases) to NRW.

TNP annual submission: 2018 verification

Following an examination of Tata Steel's submissions, NRW has been able to verify 2018's TNP returns for Port Talbot steelworks.

Future power plant development

Tata Steel's power plant enhancement project (Boilers 8 & 9) is not being pursued in full for the time being. Tata has divided this major project into phases:

- Phases 1 and 2 (refurbishment of existing assets) - Complete
- Phase 3 (1 x new 13MW turbine to replace B1, TA1 & TA2) – Ongoing
- Phase 4 (water treatment plant) – Awaiting approval
- Phase 5 (new boiler [Boiler 8]) – Under review

Phase 5 is being reviewed to ensure the planned Boiler 8 can burn gases from a variety of possible future steelworks configurations. Tata should consider the current layout and requirements of the steelworks permit – in particular, Tables S1.3 and S3.7 – to ensure it captures any revised approach for Boiler 8.

Other matters

We discussed the tracking and closure of actions raised in previous NRW CAR forms. One approach could be to include a standing item for CAR actions for discussion during routine compliance inspections, for example on a quarterly basis. Tata Steel could provide evidence that CAR Actions have been closed out during these inspections. Use of the CAR reference number i.e. **CAR_NRW00[12345]** is critical to allow clear cross-referencing, tracking and closure of CAR actions.

Martin Brunnock (Technical Director) has been announced as the new site (hub) director to replace Jon Ferriman, who has left Tata Steel.

The steel (BOS) plant will benefit from a converter vessel reline and two new cranes during 2019. During the reline period, the BOS Plant will be 'one-vessel' operation for between 2 and 3 months. This work is planned for summer 2019.

Conclusions and further actions required

Port Talbot steelworks LCP: 2018 review

Fiona Abbott has now left Tata Steel and Claire Grainger has taken on the role of the nominated (TNP) site officer for the steelworks.

The particulate ELV for the Service Boilers was incorrectly set at 20.00 mg/m³ in the last permit variation (V015). This has been corrected to 40.00 mg/m³ in the latest variation (V016).

There have been two occasions during 2018 where invalid LCP monitoring (data) periods have been notified to the regulator. In both cases, Tata Steel has fulfilled the permit notification requirement and has outlined its plan to rectify these issues.

Tata Steel has provided evidence that QAL2 tests were carried out for its LCPs during 2018. An additional QAL2 test report for the Mitchell Boiler should become available during 2019. NRW will review Tata Steel's QAL2 reports more fully as part of a separate, focused compliance intervention.

The agreed LCP abnormal operations document would benefit from periodic reviews to ensure any changes to Tata Steel's combustion plant and/or operating regimes are accurately captured. The first review could be undertaken in April 2019 and NRW is happy to participate in this process.

Tata Steel continues to use its own, UKAS-accredited Group Environment team to carry out Annual Surveillance Tests (ASTs) for all Port Talbot steelworks LCP.

The reporting of the LCP information has been clear for both the Operator and the Regulator. Tata Steel is now using published Joint Environment Programme (JEP) reporting forms for their quarterly TNP and annual non-TNP (LCP) returns. Nil returns are required for any boilers that are permitted but not operational during 2018 i.e. Boilers 8 & 9.

The annual AR1 and HR1 forms for all Tata Steel's LCPs do not necessarily need to go to the TNP Registry and should be sent to the regulator (NRW) only.

Following an examination of Tata Steel's submissions, NRW has been able to verify 2018's TNP returns for Port Talbot steelworks.

Future power plant development

Tata Steel's power plant enhancement project (Boilers 8 & 9) is not being pursued in full for the time being and has been divided into phases. Tata should consider the current layout and requirements of the steelworks permit to ensure it captures any revised approach.

[ENDS]

**MCERTS is the Environment Agency's Monitoring Certification Scheme. It provides the framework for businesses to meet the regulator's quality requirements. If businesses can comply with MCERTS it provides the regulator with confidence in the monitoring of emissions to the environment. MCERTS is used to approve instruments, people and laboratories.*

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0034631**

This form will report compliance with your permit as determined by an NRW officer

Site	Port Talbot Steel Works	Permit Ref	BL7108IM
Operator/Permit holder	Tata Steel UK Limited	Date	06/02/2019

Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	CCS Category	Action required/advised	Due Date
See Section 1 above			

Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

See our Enforcement and Civil Sanctions guidance for further information

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance that could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

Section 6 – General information

Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. Health and Safety Executive, local authorities) on environmental issues
- Carrying out statistical analysis, research and development on environmental issues
- Providing public register information to enquirers
- Investigating possible breaches of environmental law
- Assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to enquiries@naturalresourceswales.gov.uk. If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.