

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

Site	Port Talbot Steel Works EPR/BL7108IM	Permit Ref	BL7108IM		
Operator/Permit holder	Tata Steel UK Limited				
Regime	Installations				
Date of assessment	14/02/2017	Time in	09:30	Out	11:00
Assessment type	Check Monitoring/Sampling				
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	Jason Heatman/ Lead Environmental Engineer	Date issued	28/04/2017		

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
B5 - Infrastructure - Plant and equipment	A	
C2 - General Management - Management system and operating procedures	X	
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	
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) 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). The steelworks has several identifiable permitted 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). The permit also covers coke making and the reception, stockpiling and blending of raw iron making materials. Three other companies, Cambrian Stone, Harsco Metals and ICL, undertake separately-permitted slag handling, iron plating and cold mill effluent treatment activities at the steelworks on Tata'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 2016 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

Jason Heatman
Sean Langstone

NRW

Mark Broom
Doug Cowie

TNP annual submission: 2016 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)	BFG	COG	HFO	BOS	NG	CEMs Parts	CEMs SO ₂	CEMs NO _x	CEMs CO	CEMs flow	CEMs 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	✓	✓	✓but soon ✗	✗	✓	✓	✓	✓	✓	?	✓	✓
Boiler 3 (73)	Not TNP	A62	70	✓	✗	✗	✓	✓	✓	✓	✓	✓	?	✓	✓

TNP nominated site officer

Tata had planned for Jamie-Ross Landeg to take over the role of nominated site officer for the UK TNP regime. However since Jamie-Ross' move into the Process Safety Department, Fiona Abbott has taken over the role of nominated site officer. Tata needs to ensure the UK TNP registry has been formally notified of this change.

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: 2016 review

At Port Talbot steelworks the flow rates for LCP waste gases are derived and calculated 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.

The Service Boilers (A50) are capable of running on HFO during periods of low BFG and COG availability. These boilers will shortly have their HFO firing capability removed which will mean Tata no longer needs to store HFO at the tank compound near the Hot Mill Reheat Furnaces. HFO will be replaced with Natural Gas at the Service Boilers during periods of low indigenous gas availability. NG has much lower sulphur and NO_x compared to HFO.

In previous years Tata has had problems with its CODEL SO₂ and NO_x monitors at A52A (Boiler 6) and A52B (Boiler 7). These problems now appear to have been resolved and these monitors are currently in stable operation. Tata detected and notified NRW of a probe damage issue at Boiler 7 in April 2016 which led to a period of invalid monitoring data. An action plan was subsequently submitted within 28 days of detection outlining how Tata proposed to rectify the issue (Condition 3.6.2).

The previous National Emissions Reduction Plan (NERP) – which has been replaced by the TNP – concluded that CEN (European) standards must be used for any LCP. The Service Boilers

(A50) and Boiler 3 (A62) had not been 'QAL' tested in 2015 to BS EN 14181. In **CAR 6116** we specified that this work needed to be completed by the end of 2016. Tata completed QAL2 testing for Boiler 3 and the Service Boilers in November and December 2016 respectively. Since this intervention Tata has supplied written confirmation that QAL2 testing has been undertaken in 2016 for all its LCP.

Some preparatory works were needed for A50 and A62 to allow QAL testing to be conducted. Tata have invested in remote data links for the Service Boilers (A50) CEMS to align its control systems with those used at the main power plant. The new setup provides a more interactive interface, allows the boilers to be fired using NG and should help early diagnosis of any monitoring issues going forwards. Service Boiler 4 has had the new data links fitted and Service Boiler 5 is in the process of being upgraded. A further discussion about fuel storage and usage i.e. HFO is necessary once all new remote data links are active and Service Boiler 4 & 5 are both in reliable and continuous operation (Tata to confirm).

Boiler 3 (A62) has been in a slightly different position; its CEMS needed the test gases piped in to get its calibration system operating properly enabling full QAL checks in accordance with BS EN 14181. The pipework for the test gases was installed in October 2016 and will allow QAL3 (calibration) checks going forward.

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 QAL check has been completed i.e. within 28 days of the monitoring organisation's final QAL report or an Annual Surveillance Test (AST). Since this intervention Tata has submitted a full QAL2 report to NRW for its Service Boilers (A50).

Previously NRW was looking at how it assesses compliance with permit Condition 3.6.6. The current plan is that it will carry out full audits of AST and QAL reports for IED Chapter III combustion plant (Operator Monitoring Assessments or 'OMAs'). However it is also considering requiring operators of all IED Chapter III combustion plant *as well as TNP plant* to submit an annual compliance summary (V1) by the end of Quarter 1 (31 March) for each year (and partial year) of the TNP. This applies to all Tata's boilers including Boiler 3. Further clarification will be provided by NRW in 2017.

LCP abnormal operations criteria

In recent IED Annex V-compliant permits for LCP, NRW and the other environmental regulators across the UK required operators to define start-up and shutdown for each LCP. The following link is the EU guidance on start-up and shutdown:

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012D0249&from=EN>

There is other guidance available on this issue at the following link:

<http://www.energy-uk.org.uk/publication.html?task=file.download&id=5065>

Tata have reviewed this guidance and its engineers have linked the steelworks boilers to the availability of BFG as one of their start-up criteria. As discussed in **CAR NRW0026924**, Tata's LCP abnormal operations criteria need to be clearly set out in a document that NRW can reference in a future permit variation. This document must cover start-up, shut down and abnormal operations criteria.

Once this has been finalised and agreed, Tata's engineers can apply the criteria to any future ELV exceedances from their LCP to help them decide if they are reportable to NRW. A further visit/meeting in May 2017 may be necessary to review the final criteria.

Annual Surveillance Testing and accreditation

Tata uses its own 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 038 dated 28 September 2016).

<http://www.ukas.org/testing/schedules/Actual/0312Testing%20Multiple.pdf>

ASTs are scheduled for all boilers in 2017. The first round of annual testing is usually undertaken in April with the remaining boilers being assessed around June/July.

TNP reporting

The reporting for TNP and non-TNP plant has been unclear. Tata have been using the old NERP formats e.g. AAE1. These have been replaced by the Joint Environmental Programme (JEP) formats e.g. AR1. Furthermore, it appears that the JEP forms may not have caught up with current Environment Agency development work which is designed to aid completion of LCP reports/returns and reduce errors.

When submitting quarterly RTA1 forms, Tata is requested to clearly state if any data adjustment has been undertaken e.g. application of updated calibration factors. Tata may benefit from ensuring clear distinction of roles and responsibilities in respect of TNP data and control of the final TNP submissions.

The next permit variation will formally clarify the IED Chapter III LCP reporting requirements. In the meantime NRW has provided guidance on TNP and LCP reporting in **CAR_NRW0026924**.

TNP annual submission: 2016 verification

Tata had already submitted its annual AAE1 forms for its Port Talbot TNP plant (specifying fuel use and emissions) for 2016, but these returns had initially been submitted to the UK TNP Registry only. In order to verify these returns, copies must also be submitted to the relevant environmental regulator (NRW in Wales). For Port Talbot steelworks, Tata should ensure the South West Wales Industry Regulation Team mailbox is copied into any future TNP email submissions:

industryregulation.swwales@cyfoethnaturiolcymru.gov.uk

Since this intervention, Tata has forwarded the necessary returns to NRW and we were able to verify 2016's TNP submissions for the steelworks on 27 February 2017.

Conclusions and further actions required

In previous years the annual NERP verification generated a couple of issues and permit non-compliances. This year's TNP verification has been comparatively straightforward and the outstanding actions from CAR 6116 have been closed out. Tata has also notified NRW of an invalid LCP data period (including an action plan) in line with its permit requirements.

The reporting of the LCP information has been difficult and in some cases unclear to both the Operator and the Regulator. NRW has attempted to clarify current LCP and TNP reporting requirements for the steelworks. Further clarification will be provided during 2017 as the reporting forms and methods are developed further.

A number of actions have been identified following this year's TNP verification:

1. Tata needs to ensure the UK TNP registry has been formally notified that Fiona Abbott is now the nominated site officer for Port Talbot steelworks.
2. A further discussion about fuel storage and usage i.e. HFO is necessary once all new remote data links are active and Service Boiler 4 & 5 are both in reliable and continuous operation (Tata to confirm).
3. NRW to clarify the reporting requirements for ASTs and QALs going forward (Condition

3.6.6).

4. Tata's LCP abnormal operations criteria need to be clearly set out in a document that NRW can reference in a future permit variation. This document must cover start-up, shut down and abnormal operations criteria. See also CAR_NRW0026924.
5. Tata should ensure the South West Wales Industry Regulation Team mailbox is copied into any future TNP email submissions.

[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_NRW0031297**

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

Site	Port Talbot Steel Works EPR/BL7108IM	Permit Ref	BL7108IM
Operator/Permit holder	Tata Steel UK Limited	Date	14/02/2017

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			
C2	X	Tata's LCP abnormal operations criteria need to be clearly set out in a document that NRW can reference in a future permit variation. This document must cover start-up, shut down and abnormal operations criteria. See also CAR_NRW0026924.	01/09/2017

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.