

Compliance Assessment Report

Report ID:
CAR_NRW0032745

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	13/06/2017	Time in	13:00	Out	16:00
Assessment type	Audit				
Parts of the permit assessed	1 Management; 2 Operations; 3 Emissions and Monitoring; 4 Information				
Lead officer's name	Cowie, Douglas				
Accompanied by	Broom, Mark				
Recipient's name/position	Fiona Abbott/ Environment Manager	Date issued	19/01/2018		

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	
B1 - Infrastructure - Engineering for prevention and control of emissions	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	X	
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	X	

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
-----------------------------	---	---	---

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. Four other companies - Cambrian Stone, Harsco Metals, Runtech and ICL - are contracted to undertake their own permitted activities at the steelworks on behalf of Tata Steel.

Purpose of visit/assessment

This inspection focused on the Basic Oxygen Steelmaking (BOS) plant and the improvements made by Tata Steel to its emissions abatement systems. We also discussed start-up and shutdown criteria for the company's Large Combustion Plant (LCP) in the context of the EC Industrial Emissions Directive (IED) requirements.

The relevant permit conditions are listed under Sections 1.1, 2.1, 2.3, 3.1, 3.5, 3.6, 4.2 and 4.3 of Tata's permit.

Person(s) present

Tata Steel

Jason Heatman
Gabrielle Torkington
Jason Massey (LCP only)
Michael Launder (LCP only)
Sean Langstone (LCP only)
Huw Jones (LCP only)
Debbie Boyce (LCP only)
Fiona Abbott (BOS plant only)
Jerry Elward (BOS plant only)
Dave Murray (BOS plant only)
Philip Lawson (BOS plant only)
Dave Cann (BOS plant only)

NRW

Mark Broom
Doug Cowie
Guy Baskerville

LCP start-up and shutdown criteria

Chapter III of the IED allows certain LCP emissions monitoring data to be excluded for compliance purposes if it falls under defined start-up and shut-down conditions. Tata Steel has

reviewed the following EC guidance found at:

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

Following this review, Tata Steel will be proposing the following two criteria for most of their boilers at Port Talbot steelworks:

- >17% Oxygen
- <50% Blast Furnace Gas (BFG) within the fuel mix*

*except for the Service Boilers where the criteria will be <60% BFG.

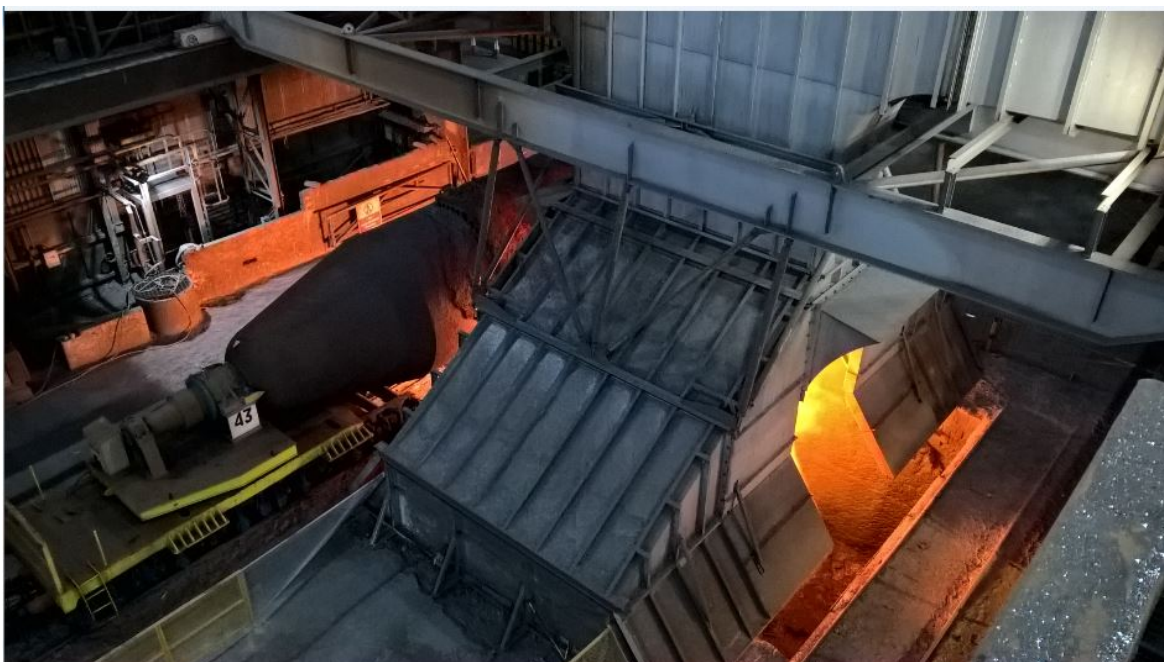
When BFG is in short supply, Tata Steel's preferred strategy is to reduce loading of BFG to Boiler 3 first so that this LCP takes the 'hit' of reduced BFG operation. Adopting this approach means that Tata Steel's other boilers can remain in a stable operation. This could also mean that the compliance data availability for Boiler 3 appears lower, but across Tata Steel's portfolio of boilers at Port Talbot the overall data availability should be better. Tata Steel needs to provide this context to explain any increased data exclusion for Boiler 3 – possibly using its annual report required by Section 4.2 of the permit.

2017 has seen several days when BFG has been unavailable due to furnace shutdowns and BFG ring (distribution) main work. This has disrupted BFG supply and heavy fuel oil (HFO) has been used for two days while the ring main was isolated. At the same time, the opportunity was taken to upgrade the control system serving Boiler 5 and the Service Boilers.

Tata Steel's Energy Department will write to NRW with details of their approach to LCP start-up and shutdown criteria. This will include an explanation of how Tata's boilers will be managed when BFG supply is limited i.e. Other Than Normal Operating Conditions (OTNOC).

Basic Oxygen Steelmaking (BOS) plant

The BOS plant fume extraction systems have had significant investment to reduce releases and to comply with the Iron & Steel BAT Conclusions. Part of this work has involved designing and installing a new travelling hood that will serve both Hot Metal Pouring (HMP) bays. This new hood is now in use on the south HMP bay. Tata Steel is making some modifications which will allow the new hood to be used at the north HMP bay. The existing hood will be maintained and used as a backup system.



The redesigned travelling hood has an improved design with fewer gaps to restrict air ingress. This design also allows better control and enhanced protection from the molten metal. We witnessed a torpedo pour which demonstrated that the molten iron can be poured within the new hood with little or no fugitive fume. The only visible fume that we saw occurred as the torpedo was rotated back into its upright position at the end of the pour; nearly all fume was captured very effectively by the new hood.

The BOS plant secondary fume extraction plant (FEP) has five fans (3, 3A, 4, 5 & 6) and associated bag filters to capture fugitive fume and dust from the process.

Fan 3 (HMP Bay)

Fan 3 was replaced following an impellor failure in 2014.

Two new chambers have been added to the bag filter. The cleaning system has yet to be optimised.

Bag changes are scheduled for chambers 1 – 8 during 2018.

Fan 3A (HMP Bay)

Fan 3A has had its fan speed settings optimised to reduce impellor fatigue and prolong its life. It now runs at a lower but more constant speed, rather than switching speeds according to load.

The bag house has had a full bag change and some dampeners have been removed to improve suction.

Fan 4 (Secondary FEP)

A full bag change is scheduled for Fan 4. New drives have been ordered to replace the existing components.

Fan 5 and Fan 6 (Secondary FEP)

Full bag changes have been completed at both bag houses. New drives have been fitted with upgrades to the existing PLC control systems. The new PLCs are in a refurbished server/switchgear room with a new airlock entrance to minimise ingress of dust. The new systems are more flexible and allow isolation of individual FEP fans and bag houses for maintenance purposes. Previously the entire Secondary FEP system would have to be brought offline to conduct repairs or correct faults.

Tata Steel's engineers are looking to dye test their bag houses on a rolling 3-month basis. Interrogation of data collected by Tata Steel's Continuous Emission Monitoring Systems (CEMS) at the BOS plant may inform the scheduling of individual tests and allow targeting of some problem areas.

The work on Phase 1 of the BOS plant Capital Expenditure (CAPEX) programme is almost complete. The performance of the new and refurbished abatement systems will be reviewed before any decisions are made on Phase 2. The monitoring data is already showing signs of improvement and reduced BOS plant particulate emissions.

Since this visit, Tata Steel has supplied further relevant information to NRW using a Schedule 5 Part B notification. This information provides a context to the BOS plant particulate breaches already identified and notified by Tata Steel during 2017.

Conclusions

Tata Steel's Energy Department needs to provide written details of its approach to LCP start-up and shutdown criteria. This submission should also include an explanation of how Tata's boilers will be managed when BFG supply is limited i.e. Other Than Normal Operating Conditions

(OTNOC).

Tata Steel needs to provide some context to explain any increased data exclusion for Boiler 3, possibly using its annual report required by Section 4.2 of the permit.

Tata Steel has demonstrated that its BOS plant upgrades and improvements are having a positive impact on emissions from this part of the steelworks. The new HMP Bay travelling hood is an impressive investment and a practical, working example of improved environmental performance. Other improvements to the Secondary FEP control systems should allow Tata Steel more flexibility to undertake maintenance and repairs to the system.

NRW awaits the outcome of Tata's Steel's assessment of BOS plant FEP Phase 1 performance and a decision in relation to Phase 2.

[ENDS]

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0032745**

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	13/06/2017

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			
G4	X	Tata Steel needs to provide some context to explain any increased data exclusion for Boiler 3, possibly using its annual report required by Section 4.2 of the permit.	31/01/2018
G1	X	Tata Steel's Energy Department needs to provide written details of its approach to LCP start-up and shutdown criteria. This submission should also include an explanation of how Tata's boilers will be managed when BFG supply is limited i.e. Other Than Normal Operating Conditions (OTNOC)	31/03/2018

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.