

Compliance Assessment Report

Report ID:
CAR_NRW0026924

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	11/01/2017	Time in	09:30	Out	12:00
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	Jason Heatman/ Senior Environmental Engineer	Date issued	02/03/2017		

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	
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) 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

This inspection focused on Tata's Large Combustion Plant (LCP) which generate power and raise steam for other steelworks plant. A number of boilers and turbo-alternators use works gases e.g. blast furnace gas, coke oven gas, BOS gas as their primary fuel source. The boilers are also capable of being fired using natural gas or heavy fuel oil (HFO) during periods of low works gas availability. During this visit we discussed abnormal operations criteria for Tata's LCP, permit emission limit values and reporting of LCP monitoring data to the regulator.

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

Person(s) present

Tata Steel

Jason Heatman
Sean Langstone

NRW

Mark Broom
Doug Cowie

Recent operating conditions

Tata has a number of LCP at Port Talbot steelworks that have been put into the UK Transitional National Plan (TNP) which will run until the end of June 2020. However one LCP – Boiler 3 – could not go into the TNP and now has dynamic emission limit values (ELVs) based on the limits outlined in Industrial Emissions Directive (IED) Chapter 3. These ELVs are based on the amounts of the different fuels Boiler 3 burns which can vary on an hourly or daily basis.

Service Boiler 4 has been out for maintenance. This has meant that 11bar steam has been exported into the steelworks steam distribution system rather than being fully utilised by Tata's power generation plant. Once this steam has been exported the resulting condensate in the system cannot be returned to the power plant for steam generation (which normally happens with

condensate from the power generation process). This has led to a shortage of condensate for raising new steam.

To make steam, the power plant boilers normally use around 1/3rd condensate and 2/3rds demineralised water. The recent weather has further compounded the condensate shortage because of high salt levels in the raw water supply from Port Talbot Docks. This has caused Tata's demineralisation plant to run at reduced capacity as it now has more salt to remove.

Overall there has been less water available to the steelworks so steam production and power generation has been down. The Service Boilers and Service Boiler 5 in particular have been fired using HFO to make up some of the shortfall. Service Boiler 5 is due to come offline for maintenance in Feb/Mar 2017.

It is likely that some of Tata's other LCPs and turbo alternators may come offline for major stops in 2017/18. The timing of these stops and any developments concerning the new power plant project will be shared with NRW over the coming months.

Abnormal operations criteria for Tata's LCP

For LCP, IED Chapter 3 requires that the start-up and shutdown periods and any abnormal operating conditions/operations all require the exclusion of data for compliance reporting purposes. Tata's Energy Department has reviewed their LCP operations and have based their exclusion criteria on the availability of blast furnace gas (BFG) which is the main fuel used to run most of their combustion plant.

Using a criteria of 50% BFG, Boiler 3 would have around 10% of its operating time (and data) excluded for abnormal operations. To maintain consistent operation for their other boilers, Tata have opted to use Boiler 3 as the LCP that will run on reduced BFG and increase its natural gas usage when BFG supplies are reduced. This approach may allow Tata to realise greater efficiencies and lower emissions overall when considering the collective environmental impact from their family of boilers.

NRW is content with this approach, but as well as reporting each LCP's abnormal operations data exclusions Tata also need to report a combined abnormal operations (average) exclusion figure for the site as a whole. This will put the abnormal operations information for Boiler 3 into context, as boiler is not operated on its own but as part of the steelworks operations as a whole.

Tata's LCP abnormal operations criteria need to be 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.

LCP ELV changes in permit variation V015

The most recent permit variation V015 issued in Feb 2016 changed a number of conditions. V015 added ELVs for release points A51 (Boiler 5) and A53 (Mitchell Boiler) and implemented dynamic ELVs for Boiler 3 (A62). The variation also lowered the particulate limit for release point A50 (Service Boilers 4 & 5) so that the ELV is tighter than the TNP limits set when Tata's IED-compliant permit was originally issued in 2015. Tata has only just found this change and they will now review the data for release point A50 to see if there any exceedances of this new limit. If any are found Tata will report them to NRW using a Schedule 5 notification.

NRW will review the reason(s) for the particulate ELV change at release point A50 to see if this was intentional or not. If the change was not intentional or was made in error, the particulate ELV for A50 will be corrected when the next variation is issued.

LCP reporting

There are three sets of reporting requirements for LCP:

- those required by Tata's EPR permit;
- those required under the UK TNP; and
- those required for the UK LCP Inventory that is sent to Europe.

The general concept is that environmental data should only be reported once to the regulator and then used many times. So if Tata's LCP data is already reported under the TNP or LCP Inventory, the same data should not be reported again to meet the permit requirements. To reflect this approach and minimise unnecessary reporting, the monitoring elements of Tata's permit will be reviewed when the next permit variation is assessed.

Under the UK TNP, the operator is required to report LCP data to the TNP Registry on a quarterly basis using the RTA1 forms. The RTA1 form records quarterly mass emissions data only. A copy of the completed RTA1 forms should be shared with the regulator e.g. cc to the inspecting officer(s).

Defra maintains the national LCP Inventory for the UK. In Wales, LCP operators need to submit data for energy, annual mass emissions, thermal input and operating hours to the regulator (NRW) on an annual basis using the AR1 and HR1 forms. This information is used to populate the UK LCP Inventory.

One additional requirement introduced by IED Article 72(3)(c) is the need to obtain the date of the start of operation of combustion plant falling within the scope of the Directive. For the LCP at Port Talbot, Tata needs to confirm the year in which each boiler started operating. This information should be emailed to the inspecting officer.

Use of the previous AAE1 forms has been discontinued. The latest version of the IED reporting forms template (containing the AR1 and HR1 forms) should be used going forward. This has been uploaded onto the Energy UK web site:

<http://www.energy-uk.org.uk/policy/environmental-regulation/industry-guidance.html>

Boiler 3 is not in the UK TNP and Tata therefore does not need to report quarterly emissions data for this particular LCP to the TNP Registry. However energy and operating hours data is needed for **all** Tata's boilers for the LCP Inventory, so completed AR1 and HR1 forms for Boiler 3 are required annually.

We suggest that a 'surrogate' RTA1 form could be completed for Boiler 3 as well as the other LCP at Port Talbot to capture its quarterly mass emissions. This would standardise the monitoring Tata need to capture and allow a clear comparison with quarterly mass emissions from its other LCPs. **The surrogate RTA1 form for Boiler 3 should only be submitted to NRW's inspecting officer(s) and does not need to be sent to the UK TNP Registry.**

Due to the issues around dynamic emission limits for Boiler 3, for 2016 Tata needs to report compliance against the monthly mean ELVs and the annual mean ELVs, based on the fuels burnt each month and over the year to calculate the ELVs. For the annual mean, 95% of validated hourly averages in a calendar year must not exceed 200% of the ELV as it appears in Tata's permit. The IED Chapter 3 Part 4 sets out the ELVs and IED Article 40(1) sets out how to calculate the ELVs when more than one fuel is burnt simultaneously in an LCP for any given averaging period.

For Boiler 3's 2017 data, the daily mean ELVs and CEMS data could be represented graphically as opposed to tabulating ~90 days' worth of data. Tata could also include a simple summary of the number of days of operation, the number of days of normal operation and the number of days

in compliance with the ELVs in each quarter or month.

Although the other LCPs at Port Talbot will not need to have this level of reporting until the TNP ends in July 2020, it would be useful to run this type of reporting for them against the post-TNP ELVs so that Tata can see if there are any compliance issues as early as possible and assess how significant these issues are. Early action should allow any issues to be tackled between now and 2020.

For the steelworks TNP plant which has fixed ELVs, Tata need to report compliance against three ELV averaging periods (daily, monthly and annual).

TNP additional reporting requirements

Tata has received an email from the TNP Helpdesk about additional reporting requirements. The email does not make it clear and unambiguous what is required of Tata and if the additional requirements apply going forwards (for 2017 data reported in early 2018) or need to be back dated for 2016's data. NRW needs to confirm which period the additional requirements apply to and advise Tata accordingly.

The TNP sign-off date for 2016's data is 28 February 2017. Since this intervention NRW has verified Tata's 2016 TNP submissions (see **CAR_NRW0031297**) and we have confirmed this with the UK TNP Registry.

[ENDS]

EPR Compliance Assessment Report

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Site	Port Talbot Steel Works EPR/BL7108IM	Permit Ref	BL7108IM
Operator/Permit holder	Tata Steel UK Limited	Date	11/01/2017

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 Steel needs to set out its abnormal operations criteria for its LCP in a document which will form part of the agreed operating techniques. This document must cover start-up, shutdown and abnormal operations and should be submitted to NRW for comment.	31/03/2017

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.