

Compliance Assessment Report

Report ID:
CAR_NRW0020638

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	29/06/2016	Time in	09:00	Out	17:00
Assessment type	Audit				
Parts of the permit assessed	1 Management; 2 Operations; 3 Emissions & Monitoring				
Lead officer's name	Broom, Mark				
Accompanied by	Cowie, Douglas,Baskerville, Guy				
Recipient's name/position	Fiona Abbott/ Environment Manager	Date issued	19/09/2016		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. 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	
C2 - General Management - Management system and operating procedures	A	
E1 - Emissions - Air	A	
F1 - Amenity - Odour	A	
F2 - Amenity - Noise	A	
F3 - Amenity - Dust/fibres/particulates and litter	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	

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

To review the complaint issues reported to Tata over the previous quarter of operation (Apr 16 – Jun 16 inclusive). To discuss the start/stop criteria and define abnormal operations for the Large Combustion Plant (LCP).

Person(s) present

Tata Steel

Scott McKinnon (Complaints)

Jason Heatman (Complaints and LCP)

Claire Grainger (Complaints)

Jamie-Ross Landeg (Complaints)

Jason Massey (Complaints)

Sean Langstone (LCP)

NRW

Guy Baskerville

Doug Cowie

Mark Broom

Complaints

Tata collate their complaints in a spreadsheet and they use this document to track their contact and close out with each report. Complaints received during the second quarter of 2016 have been dominated by reports of bleeder valve openings on both blast furnaces.

	April	May	June (to date)
Bleeders	3	25	~72
BOS plant slops		4	
Fall out		5	
Noise		1	
Odour	2	2	
General	5		
Black push	1		
Total	12	37	~72

Furnace stability on BF No.4 is now good and stability is returning to BF No.5. Details of the work being done to improve furnace stability has been reviewed by NRW in CAR_NRW0025274. Work at the steel (BOS) plant to reduce slops and the Coke Ovens to reduce fugitive emissions has been reviewed in CAR_NRW0025273.

It was noted that the total number of bleeder valve releases recorded on two recent Schedule 5 Part A notifications S5N_16_39A and S5N_16_40A is higher than the number of bleeder valve releases which have produced visual emissions e.g. black smoke. On BF No.4 and BF No.5, the semi-clean bleeder valve activates first to reduce furnace top gas pressure; this bleeder valve is situated on the furnace gas cleaning system and normally only generates a noise when activated. Tata has distinguished between semi-clean bleeder openings only and semi-clean + other bleeder openings on both its Schedule 5 notifications. NRW awaits further comment from Tata in its Part B notifications.

Details of the monthly dust/fallout results from the deposition monitoring carried out by Neath Port Talbot County Borough Council (NPTCBC) have not been received for the most recent months. This data will be reviewed when it becomes available.

In terms of on-site PM10 monitoring, Tata's Safety, Health & Environment (SHE) Team has reduced its action point from 45 µg/m³ to 40 µg/m³ which should help to improve Tata's response to escalating poor air quality. Many of the PM10 exceedance days recorded by NPTCBC's air quality monitoring network in 2015 were marginal and it is hoped that earlier on-site interventions can contribute to a reduction in the number of PM10 exceedance days.

Noise complaint investigation work is continuing. Data obtained by NRW during a recent sound monitoring session is being assessed. Our initial feedback is that each bleeder opening can be identified by the increase in noise at the monitoring location, which was positioned inside the Visitor's Centre near the eastern boundary of the steelworks. Further feedback will be provided once our data has been analysed.

Tata is continuing to work with local NPTCBC councillors to help improve the company's community engagement. The local councillors representing the wards adjacent to the steelworks receive weekly updates about complaints. If there is a specific issue – as there has been with BF No.4 and then later with BF No.5 – the SHE Team contacts these councillors directly to explain what Tata is doing to respond to these events.

There has been one example of an administration failure between Tata's Community Support contact centre and the SHE Team which has led to delayed feedback regarding a recent bleeder release. Overall however Tata's approach to community engagement and councillor liaison appears to be working well.

LCP start up/shut down criteria

The European Commission (EC) has published guidance on defining large combustion plant (LCP) start up and shut down:

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

Tata is looking at a range of criteria for this issue including oxygen content of the flue gas, the number of operating blast furnaces producing Blast Furnace Gas (BFG) and the amount of BFG used. Different criteria may need to be used for different boilers. Tata could consider the number of BOS converters in use as a criterion; when the site is on one-converter operation, the amount of available Basic Oxygen Steelmaking gas (BOSG) reduces. In all cases, Tata needs to do some frequency analysis to determine how commonly these different operating conditions occur.

ELVs for multi-fuel firing

Certain combustion plant do not have to comply with the limits in the Industrial Emissions Directive (IED) if they are in the Transitional National Plan (TNP). It became clear during our discussions that Tata was

planning to have fixed emission limit values (ELVs) for its non-TNP combustion plant (Boiler 3) at Port Talbot. Tata also hoped to have fixed ELVs for its remaining combustion plant (Service Boilers 4 & 5, Boiler 5, Boiler 6, Boiler 7 and the Mitchell Boiler) when they leave the TNP after 30/06/2020.

This position is reinforced by Tata's Improvement Condition (IC) 6 submission to NRW which outlines fixed fuel-weighted ELVs for three boilers (A51 – Boiler 5, A53 – Mitchell Boiler and A62 – Boiler 3). Tata's submission also sets the daily ELV at 121% (and not 110%) of the fixed ELV, and the annual ELV has been set at 200% of the fixed ELV. The latter (annual) is correct if a fixed ELV was allowed.

NRW's regulatory position is clear on multi-fuel firing (MFF) for boilers that can burn more than one type of fuel at any one time: IED Article 40(1) explains how ELVs have to be calculated. Article 40(1) refers to the limit values for each fuel in Annex V of IED. The MFF ELV is based on the fuel weighting depending on the fuels being burnt.

IED also has three ELV averaging times: daily, monthly and annual:

- The monthly ELV is calculated for MFF according to IED Article 40(1) using the fuels burnt that month;
- The daily ELV is based on the fuels burnt that day using Article 40(1) and 1.1 {the factor in Annex V Part 4, 1, b}; similarly
- The annual averaging time is calculated by using the fuels burnt that year using article 40(1) and (2) {the factor in Annex V Part 4, 1, d}.

This approach generates a dynamic ELV that changes according to the changes in fuels being burnt within the relevant time frame. Compliance with the ELVs is assessed using Tata's measured and validated daily, monthly and annual mean (average) values for its combustion plant emissions. NRW has previously outlined this when it reviewed Tata's NERP 2014 submissions – see CAR report 5833.

Boiler 3

Using the Article 40(1) approach, the monthly fuel usage data and the Continuous Emission Monitors (CEMs) information submitted by Tata since 2012, the monthly ELVs based on the different fuels burnt have always been compliant (48 months) and the annual ELV has also been compliant (4 years).

Tata do not routinely submit their daily fuel usage rates nor their daily CEMS data for Boiler 3, so NRW cannot assess compliance with the daily ELV. Based on a fuel regime where three main fuels (BFG, BOSG and Natural Gas) are used to fire the boiler, Tata could encounter compliance problems with their highest daily mean results for NO_x if they were firing Natural Gas or BFG or a combination of both these two fuels. All three measured parameters at Boiler 3 (SO₂, NO_x and particulates) could be non-compliant with their ELVs if only Natural Gas was burnt and the particulates ELV could be at risk if only BFG was burnt. If Boiler 3 was fired using 100% BOSG then all three parameters look like they would be compliant.

IED compliance situation

The summary tables below show the compliance situation for all Tata's boilers at Port Talbot steelworks against the post-TNP IED monthly mean ELVs. The tables also show the situation for Boiler 3 against its daily, monthly and annual ELVs.

Compliance summary			% compliance with Post TNP IED mm ELVs									
	2012			2013			2014			2015		
LCP	SO2	Nox	Parts	SO2	Nox	Parts	SO2	Nox	Parts	SO2	Nox	Parts
Mitchell			100			100			100			100
Boiler 5			100			100			100			100
Boiler 6	100	100	100	100	58	100	100	100	100	92	100	100
Boiler 7	100	83.63636	100	55	58	100	83	100	100	100	100	100
Service Boilers	50	83.33333	100	100	100	100	100	92	92	67	83	100
Boiler 3	100	100	100	100	100	100	100	100	100	100	100	100
Compliance with Annual ELVs post TNP												
Mitchell												
Boiler 5												
Boiler 6												
Boiler 7												
Service Boilers												
Boiler 3	100	100	100	100	100	100	100	100	100	100	100	100
No data exclusion, no uncertainty removal												
Daily compliance = % of months daily ELV is breached as the daily fuel and CEMS data is not routinely reported												
Boiler 3	100	100	66.66667	100	100	72.72727	100	100	66.66667	100	100	100
Boiler 3 NG only	8.333333	83.33333	0	27.27	63.64	18.18	8.33	83.33	16.67	16.67	75	41.66667
Boiler 3 BFG only	100	100	66.66667	100	100	72.72727	100	100	66.66667	100	100	100
Boiler 3 BOS only	100	100	100	100	100	100	100	100	100	100	100	100

Tata needs to review Boiler 3's performance against its ability to comply with the daily ELV, using data for the fuels burnt that day and the MFF calculations described above, to see under what operating conditions there are potential ELV compliance issues. It may be that a combination of circumstances lead to abnormal operation conditions for this boiler. To manage compliance against the daily ELV, Tata needs to examine the hourly data for this boiler more closely to see if there are any patterns or trends associated with different combustion conditions.

Conclusions

Complaints about Tata Steel Port Talbot are currently dominated by the blast furnace bleeder openings which have been caused by furnace stability issues. Were it not for these furnace stability problems, the number of complaints received about the installation would be relatively low. It is clear that the recent spate of bleeder openings are detracting from this good performance. Tata's engagement with the local councillors is good and NRW encourages the company to continue with this approach to help show the effort and commitment Tata are making to deal with the challenges of blast furnace stability.

It appears that there has been a misunderstanding over the application of ELVs for combustion plant outside the TNP. IED is clear that ELVs for multi-fuel fired (MFF) combustion plant must be calculated in a set way [IED Article 40(1)]. The averaging times for these ELVs are also set out in the IED Annex V, Part 4.

Managing a dynamic ELV for MFF combustion plant is a challenge, but is one that other regulated industrial installations have solved. NRW is willing to work with Tata Steel to ensure the same challenge is addressed and met for the combustion plant at Port Talbot steelworks.

EPR Compliance Assessment Report

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Operator/Permit holder	Tata Steel UK Limited	Date	29/06/2016

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 reports should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within twenty 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.