Cyfoeth Naturiol Cymru / Natural Resources Wales	**EPR Compliance Assessment Report**	Report ID: 6103

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

Site	**Tata Steel Port Talbot steelworks**			Permit Ref	BL7108IM (as amended)		
Operator/ Permit holder	Tata Steel UK Ltd						
Date	4 February 2016			Time in	09.30	Out	14.30
What parts of the permit were assessed	See below						
Assessment	EPR - inspection	EPR Activity:	Installation X	Waste Op		Water Discharge	
Recipient's name/position	Jason Heatman, Lead Environmental Engineer, Tata Steel Port Talbot						
Officers names	DMP Broom & DE Cowie			Date issued	20/4/2016		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). 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			Condition(s) breached
a) Permitted activities	**1**. Specified by permit	A	
b) Infrastructure	**1.** Engineering for prevention & control of pollution	A	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	A	
c) General management	**1**. Staff competency/ training	A	
	2. Management system & operating procedures	C3	1.1.1 General Management
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	**1**. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	**1.** Air	A	
	2. Land & Groundwater	N	
	3. Surface water	A	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	**1**. Odour	N	
	2. Noise	N	
	3. Dust/fibres/particulates	A	
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
g) Monitoring and records, maintenance and reporting	**1**. Monitoring of emissions & environment	A	
	2. Records of activity, site diary, journal & events	A	
	3. Maintenance records	A	
	4. Reporting & notification	A	
h) Resource efficiency	**1**. Efficient use of raw materials	N	
	2. Energy	N	

KEY: **C1, C2, C3, C4** = CCS breach category **(* suspended scores are marked with an asterisk),**
A = Assessed or assessed in part (no evidence of non-compliance), **N** = Not assessed, **NA** = Not Applicable

Number of breaches recorded	1	**Total compliance score** (see section 5 for scoring scheme)	4

If the Total No Breaches is greater than zero, then please see Section 3 for details of 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 (e.g. 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 suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all 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. Two other companies, Cambrian Stone and Harsco, undertake separately-permitted slag handling and iron plating activities at the steelworks on Tata's behalf.

Purpose of visit/assessment

- To review the methods of fugitive emissions monitoring at Morfa Coke Ovens (doors, tops and charging),
- to discuss the water sampling undertaken by Tata's Energy Dept. and at the raw material stockyards
- to discuss the UK approach to the Ferrous Metals Processing BREF note and BAT conclusions
- to review the findings of the investigation into high levels of particulates at the GCI plant in November 2015

Person(s) present (Office based)

Tata Steel Fiona Abbott
Jason Heatman
Andrew Townsend (CO & GCI)
Ian Gofton (CO)
Charlotte Barlow (CO)
Mathew Herbert (Water)
Martin Lewis (GCI)
John Lord (GCI)

NRW Mark Broom
Doug Cowie

Fugitive emissions monitoring at Morfa Coke Ovens

There are a number of sources of fume from the coke ovens. These include where there are seals between the coke ovens, the gas collection system and the environment. The main releases of fume typically come from the doors and their associated seals, from the gas collection system and the charge holes where coal is charged into the ovens. There have been a number of emails and teleconference about fugitive releases, their monitoring and associated BAT limits between the EA and NRW.

Doors

Tata confirmed that it assesses the door emissions as three scores – one for the ram side, one for the coke side and a separate score for the leveller doors positioned above the main ram side doors. Tata also record fires as part of the assessment and are working towards an internally-set limit of 2% for fires as a monthly mean. Tata Port Talbot has not adopted the Dutch approach of only classifying a leak as a leak if it is seen or repeated again after 24 hours or the next round of monitoring. Tata Port Talbot expects to be compliant with the BATc Emission Limit Value (ELV) for coke oven doors of 10% as a monthly mean.

Tops

At Port Talbot the score for tops is calculated by assessing emissions from the charge holes (x 4), spigots (x 2), spindles (x 2) and goosenecks (x 2) for each oven. The leakage ELV for tops will become 1% from mid-March 2016. Tata is aware that the spigots are a major source of leaks based on the work completed so far. Tata's new sealing system has a success rate of 75% with any failures needing to be resealed. Movement of the battery may account for the seal failures on the affected goosenecks; it appears some areas are more prone to failure than others. Tata is also working on a slightly more flexible sealant material with its supplier. A number of spigots – around 30% – need major replacement work which, based on current estimates, will take around 18 – 24 months to complete before Tata can comply with the 1% ELV. There is no compelling reason to change from the proposed combined ELV for coke oven tops.

Charging

The ELV for charging emissions is 30% as a monthly mean. Tata has reviewed the causes of charging releases and has found that modifying the screw feeder on the charge car and continuing with the current plan to realign charge holes should allow the company to comply with this ELV.

NRW is satisfied that there is no valid reason for Tata to continue using the British Coke Research Association (BCRA) assessment methods for tops and charging, given that the new IED limits are due to come into force in March 2016. Previous CAR forms on this issue have accepted the use of the modified US EPA method for assessing the fugitive releases from coke oven doors. Use of the BCRA assessment methods for doors, tops and charging can be halted providing the agreed new methods are in use.

Water sampling

The monitoring requirements for two of Tata's permitted discharges to water were reviewed.

W5 – power plant cooling water discharge into Port Talbot Dock

Tata notified NRW of three exceedances of the permitted limit for suspended solids (s/s) at emission point W5 during 2015. These breaches have been assessed in CAR 6071. Previously Tata provided the following response concerning these breaches:

Following a review of the procedure and the sampling of the emission points between the Energy Department and the Environmental team highlighted a management system failure. A series of meetings on the matter has allowed for a more robust procedure to be developed and rolled out to the shift managers of the Power Plant via the Fire and Environment Manager. This revised procedure will also be undertaken by the Power Plant Shift Engineer or Section Leader to ensure the correct sampling methodology is undertaken. It has also been agreed between NRW and the Environment team that a more comparative method of sampling will be undertaken going forward, where one sample of both the background and discharge water will be taken once a week for comparison.

As outlined above, NRW has agreed in principle a more comparative and better aligned method of sampling the discharge at W5 and the background suspended solids. During this intervention Tata presented further findings from its investigation into the exceedances at W5 during 2015. Tata concluded that the elevated results were due to sampling error for which the root cause was lack of training for Tata's samplers. During Tata's investigation it was found that there is a 'dead leg' - a pipe leading to an outlet through which liquid flows but the outlet is unused/rarely used – in the pipework at W5 where the sample is taken. The sampling pipe must be run for a short period to clear solids/scale build up until the pipe is clear and the flow is representative of Tata's cooling water discharge. Only then should the sample be taken.

Tata has reviewed its specific procedure for sampling at W5 (SPOL-9UYE76 Revision No. 6), which, if followed, should avoid re-occurrence of this problem. Tata provided evidence to show its samplers have now been trained to follow this revised procedure. A copy of Tata's procedure was provided to the inspecting officers.

The failure to provide adequate sampling training which led to the s/s exceedances at W5 during 2015 has been assessed as a failure of the operator's Environmental Management System (EMS) and a non-compliance with permit condition 1.1.1(a). One **Category 3** compliance score has been recorded.

NRW has received a written proposal from Tata Steel for new monitoring frequencies at W5. Tata's proposed method is to take one sample of the background and the discharge at the same time every week. This will allow for a more comparative sampling regime as well as providing a more closely monitored emission point. There are no proposals to change the emission limit value for suspended solids. Continuous monitoring is already provided for flow and temperature and this will also stay the same.

NRW is content with Tata's proposal for concurrent weekly monitoring of the cooling water discharge at W5 and the background suspended solids. Schedule 3 Table S3.8 of the permit may be altered as part of a future variation to reflect these new monitoring frequencies.

W4 – iron ore stockyard into Afan estuary

Tata's current permit does not specify any emission limit values (ELVs) or sampling frequencies for W4. The original 2004 PPC permit for the steelworks did include an Improvement Condition (IC) which asked Corus UK to submit a monitoring proposal for W4. Corus' response was received in September 2004 and proposed limited sampling for pH, suspended solids, total iron, soluble iron and oil. The detail does not appear to have been agreed following Corus' submission, but a reporting form (I&S W4)

has previously been used to capture monitoring data for this emission point.

The stockyards discharge at W4 is intermittent and rainfall-dependent. Tata has identified access problems at the discharge point which may prevent safe sampling; however there is a sump located closer to the stockyards which may provide a safer sampling option. Tata agreed to investigate this further and confirm if the sump is a suitable (and safe) sampling location.

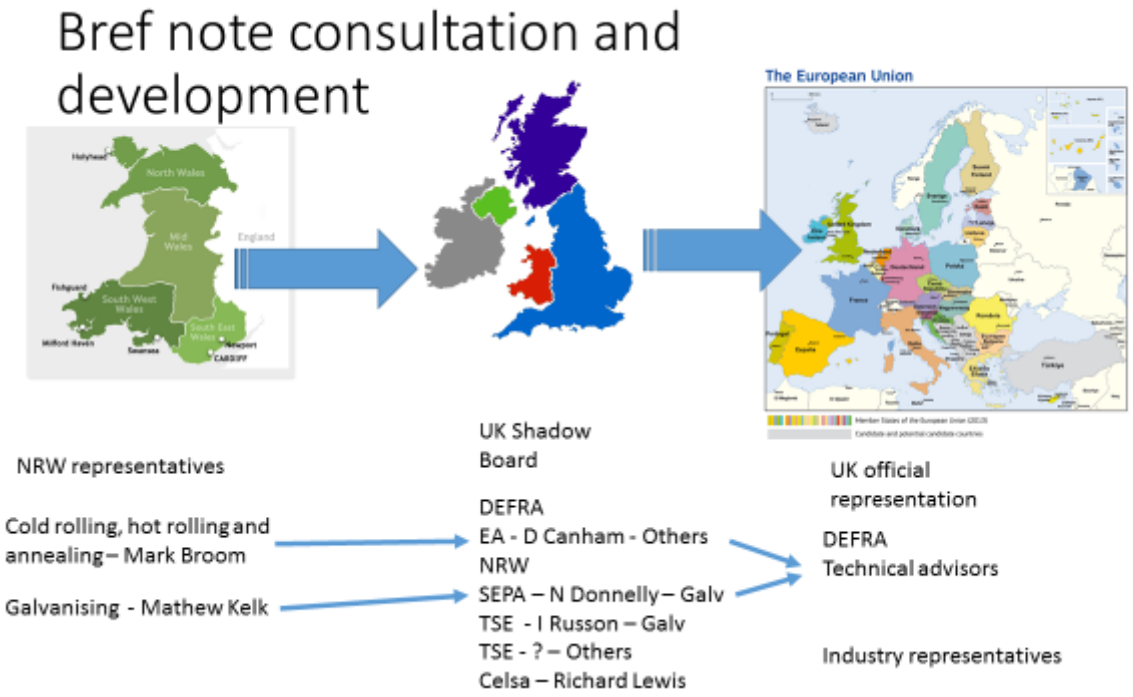
The Iron and Steel BAT conclusions do not set any limits or BAT-AELs for this type of release. NRW therefore proposes that Tata conducts a monthly check at the agreed W4 sampling point. If a flow is detected, then the discharge should be sampled and analysed for the following parameters previously identified in Corus UK's IC response:

- pH
- Suspended Solids (mg/l)
- Total Iron (mg/l)
- Soluble/Dissolved Iron (mg/l)
- Oil and grease (visible check)

The results should be reported to NRW every 6 months in accordance with the new reporting frequencies outlined in Schedule 4 Table S4.1. Form I&S W4 can still be used for reporting purposes. If any changes to I&S W4 are needed, an editable electronic copy should be submitted to NRW's inspecting officers so this can be modified and re-issued.

Ferrous metal processing BREF note and associated Bat conclusions

Work on reviewing the Ferrous Metals Processing (FMP) BREF note is planned to start during 2016. This BREF will inform new BAT conclusions for cold rolling, hot rolling, annealing and galvanising activities. The European trade body, Eurofer, has started to gather information from its members in response to this review. Tata Steel has representatives from their UK sites on each of the Eurofer working parties that act as an industrial shadow grouping for this BREF note. The UK will be setting up its own shadow working group to help provide information to the UK representatives attending the FMP BREF meetings. The shadow group will also provide advice and feedback on how the draft conclusions could affect UK sites. Once the BREF is issued, the shadow group will be able to offer interpretations of its conclusions to help improve consistency of interpretation by UK environmental regulators.



The diagram above shows the current members of the various groupings associated with the FMP BREF note review.

Granulated Coal Injection (GCI) drier dust release 17/11/2015

In November 2015 Tata notified NRW of an exceedance of the permitted limit for particulates at emission point A37. This breach has been assessed in CAR 6074. Previously Tata provided the following response concerning this breach:

During the annual spot sample of emission point A37 the high reading was identified. Investigation underway to determine the source of the high levels. Plant offline.

During the annual routine discontinuous monitoring for the GCI fluidised bed dryers on 27 November 2015, one particulates result for the bag filter plant at Fluidised Bed Drier 1 was found to be eight times over the permitted limit of 25.00mg/m^3. Drier 1 was shut down and the bag filter was inspected. Emissions from the GCI plant were diverted to Drier 2.

Following a dye test, a single bag out of 216 bags was found to be damaged at the collar. It is thought that the position of the hole in the bag may have influenced the magnitude of the result on 17/11/2015. Each bag is approximately 3 metres long and 15cm / 6 inches in diameter. Following a repair and a re-test for particulates, emission levels returned to within 25.00mg/m^3.

The bags at Drier 1 were changed in June 2015 as part of planned annual maintenance. Tata routinely tests bag performance every 12 weeks using dye to detect any problems. Dye testing is a recognised technique for bag houses and Tata's 12-week regime appears to be good practice. Tata's September 2015 dye test found no problems with Drier 1. Tata is now reviewing these particular bags with its supplier to see if there was a manufacturing problem. Tata's investigation did not consider the use of differential pressure monitoring; however this is in place and showed no indicators prior to the failure. The bags are not operated to failure and this particular bag failed within 6 months of being changed.

Tata could consider checking the bag filter differential pressure readings before and after dye testing – possibly when the system is purged using inert gas. Periodically checking and recording differential pressure readings taken during stable operating conditions may also highlight any problems as early as possible.

Based on the September 2015 dye test results and our assessment of Tata's root cause analysis documents, NRW has not identified any failure of Tata's EMS system or maintenance procedures.

Following the introduction of the Industrial Emissions Directive (IED) and the revised Iron & Steel BAT conclusions from March 2016, the permitted limit for discontinuous monitoring of particulates at A37 has changed and is now 20.00mg/m^3.

Conclusions and further actions required

Tata's coke ovens fugitive release monitoring is similar to that carried out in Holland and not that different to the proposals for the Scunthorpe coke ovens. Tata Port Talbot may struggle to meet the new limits, particularly for tops. NRW is satisfied that there is no valid reason for Tata to continue using the British Coke Research Association (BCRA) assessment methods for doors, tops and charging, given that the new IED limits are due to come into force in March 2016. Use of the BCRA methods can be halted providing the agreed new methods are in use.

The actions taken for the water sampling should address the high suspended solids results due to a combination of scale/solids build up in the sample dead leg and sampling training issues. A Category 3 non-compliance has been identified in relation to the EMS failure that led to the lack of sampling training. New weekly monitoring frequencies for W5 have been agreed. For W4, Tata will investigate the sampling options at the stockyards and inform NRW of its findings. NRW has suggested a proportionate approach to sampling at W4 for certain key determinants.

NRW has determined that the GCI Fluidised Bed Drier 1 bag house failure in November 2015 was not due to any management/EMS failure. Good practice in terms of bag replacement and testing is in place. NRW has offered some recommendations in relation to the use of differential pressure data that could aid early detection of leaks.

Tata are engaging with the review and development of the Ferrous Metals Processing BREF note. The new approach to BREF notes, with the creation of a shadow group to help gather information, provide advice and feedback during the BREF note development, should help UK both as industry and regulators influence these important documents.

[END OF SECTION 2]

Cyfoeth Naturiol Cymru Natural Resources Wales	**EPR Compliance Assessment Report**	Report ID**:** 6103

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

Site	Tata Steel Port Talbot steelworks	Permit	BL7108IM (as amended)
Operator/ Permit	Tata Steel UK Ltd	Date	20/4/2016

Section 3- Enforcement Response **Only one of the boxes below should be ticked**

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.

Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.	n/a
In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.	n/a
We will now consider what enforcement action is appropriate and notify you, referencing this form.	n/a

Section 4- Action(s)

Where a non - compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

Criteria Ref.	**CCS Category**	**Action Required/Advised**	**Due Date**
See Section 1 above			
C2	C3	**No action required.** A revised procedure for water sampling at W5 is in place and Tata has provided evidence that key Energy Department personnel have been trained in its use.	N/A
E3	N/A	**Action:** The stockyards discharge at W4 is intermittent and rainfall-dependent. Tata has identified access problems at the discharge point which may prevent safe sampling; however there is a sump located closer to the stockyards which may provide a safer sampling option. Tata agreed to investigate this further and confirm if the sump is a suitable (and safe) sampling location.	31 May 2016
B1	N/A	**Recommendation:** GCI Fluidised Bed Driers 1 and 2: Tata could consider checking the bag filter differential pressure readings before and after dye testing and possibly when the system is purged using inert gas. Periodically checking and recording differential pressure readings taken during stable operating conditions may also highlight any problems as early as possible.	N/A

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 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 which 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 Natural Resources Wales (NRW) to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). 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 (e.g. 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 and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

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

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 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 the officer's line managers. 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) 601 0987.