Cyfoeth Naturiol Cymru / Natural Resources Wales	**EPR Compliance Assessment Report**	Report ID: 05820

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	30 January 2015			Time in	13.00	Out	16.30
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	19 May 2015		

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	N		
	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	N		
	2. Management system & operating procedures	A		
	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	N		
	4. Sewer	N		
	5. Waste	N		
f) Amenity	**1**. Odour	N		
	2. Noise	N		
	3. Dust/fibres/particulates	N		
	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	N		
	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	0	**Total compliance score** (see section 5 for scoring scheme)	0

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 discuss and review fugitive release monitoring at the coke ovens, to review the life time extension projects and the plans for making coke beyond the anticipated working life of the current coke ovens.

Person(s) present (Office based)

Tata Steel Richard Leonard
Andrew Townsend
Ian Gofton
Jason Heatman
Charlotte Barlow

NRW Mark Broom
Doug Cowie
Jeremy Walters

Fugitive release monitoring

The table below shows the two main methods of fugitive release monitoring, their applicability and their reference to the Coke, Iron and Steel BAT conclusions (BATc):

		BCRA	US EPA/DMT	Tata PT
Doors	Frequency	Every door every 3 months	Every door every day	Every door every day
	Assessment method	4 grades of leak	Leak/ no leak	Leak/ no leak
	Output	Percentage dimensionless number based on time, grade and factors	Percentage leaking doors	Percentage leaking doors
	Ease of assessment	Complex assessment, complex output	Simple assessment, simple output	Simple assessment, simple output
	BATc 46 comparison	No simple conversion	Direct comparison	Direct comparison
	BAT AEL 5 -10% mm		Daily mean	Daily mean and/or monthly mean
Tops	Frequency	Every oven every 3 months	Every oven every day	Every oven every day
	Assessment method	4 grades of leak	Leak/ no leak	Leak/ no leak
	Output	Percentage dimensionless number based on time, grade and factors	Percentage leaking ovens	Percentage leaking ovens
	Ease of assessment	Complex assessment, complex output	Simple assessment, simple output	Simple assessment, simple output
	BATc 46 comparison	No simple conversion	Direct comparison	Direct comparison
	BAT AEL <1% mm		Daily mean	Daily mean and/or monthly mean

		BCRA	US EPA/DMT	Tata PT
Charging	Frequency	Every oven every 3 months	? charges every day	
	Assessment method	4 grades of release	Duration of release	
	Output	Dimensionless number based on time, grade and factors	Average duration of release/charge	
	Ease of assessment	Complex assessment, complex output	Simple assessment, simple output	
	BATc 44 comparison	No simple conversion	Direct comparison	
	BAT AEL <30s mm		Daily mean	
Pushing	Frequency	Every oven every 3 months		
	Assessment method	4 grades of release		
	Output	Dimensionless number based on time, grade and factors		
	Ease of assessment	Complex assessment, complex output		
	BATc 50 comparison	None quantitative method required		
	BAT AEL <20 mg/m^3 on discontinuous sampling			

There are four British Coke Research Association (BCRA) methods in use: Top Leakage Control Factors (TLCF – Tops), Door Leakage Control Factors (DLCF -Doors), Mass Emission Factors (MEFS – Charging) and Pushing Emissions Factors (PEFs – Pushing). The US EPA Method 303 is a single document that covers the equivalent of the first three BCRA methods but not pushing releases. The DMT method used in Germany is largely based on the US EPA Method 303, but with three grades of leak. There is also a Dutch method but the scope and applicability of this method is not known at the time of writing. All of the above methods are recognised in the Coke, Iron and Steel BATc.

The four operating coke ovens sites in the UK – Port Talbot, Scunthorpe, Teesside and Monckton – have reviewed the methods for assessing fugitive releases and concluded that a simple leak/no leak assessment has advantages over the BCRA method. Part of the supporting argument was that the BCRA method is time consuming, complicated, difficult to replicate, audit and are not easy to use or understand. We understand the UK operators' conclusion was taken to and rejected by the Environment Agency. NRW will shortly be attending an Environmental Regulators meeting which will include a discussion on this issue.

Tata Port Talbot are currently running both the BCRA and leak/no leak methods side by side. Tata's data shows that although their BCRA doors assessments are in the high 99% range, the leak/no leak assessments are showing up to 20% leaking doors a day. The doors on most if not all UK ovens are 'knife edge' seals rather than other designs used in Europe e.g. 'Blue Sky seals'. This means that for the UK ovens the seals have to be manually adjusted to ensure good tight operation. This can only be done once the ram machine used to push the ovens is a set distance away from human operators working on mobile scissor platforms. At Port Talbot, Tata carries out its assessment on the oven doors, then assesses the leaks on the top of the ovens and finally returns to the doors that were missed earlier (due to the need to maintain ram distance) to safely seal them.

Tata's draft reviewed permit has a specific improvement condition (IC3) dealing with this issue. Tata could reply to NRW submitting its preferred method and propose interim limits between the submission and the publication of the Coke, Iron and Steel BAT Conclusions in March 2016 when the BATc limits will be imposed.

Coke ovens life extension projects

Tata have a number of life time extension projects which are in progress for Morfa Coke Ovens. The broad aim of these projects is to extend the working life of the coke ovens to 2023 and possibly beyond. The projects can be broadly divided into coke oven battery improvements and coke oven by-products plant upgrades.

By-products projects

Most of the major vessels and pipelines in the by-products plant have either have been or will be replaced over the next two years. In addition two new de-tarrer units will be installed. The benefits offered are that coke ovens gas desulphurisation can be installed, but the quality of the Coke Oven Gas (COG) will also be improved so that changing from Blast Furnace Gas (BFG) to COG should be easier and lead to less visible smoke releases following change overs.

Coke oven batteries

The systems used to keep individual coke ovens under compression are being reviewed and overhauled where defects are found. Each spring is being set and standardised by Otto Simon Carves (OSC) who are the oven designers and builders. There are 26 springs on each stay, two stays per oven and 84 ovens with two extra springs for the end ovens. That makes 26*2*86 springs (which equals 6192 springs) to be checked standardised and recorded. Also the tie-rods at the top of the ovens are being checked and replaced if defective. In general, the top springs and some tie-rods have been affected by the heat from the coke ovens and weakened. Similarly there are 86 tie-rods on the top of the ovens to be checked, tensioned, standardised and recorded.

Once complete, Tata will ask OSC to validate their work and to check the ovens to the set standards. Tata will then periodically check these springs, stays and rods against the standards to assess any changes to the ovens. Measuring the strain force needed when pushing each oven can also inform Tata about the condition of individual ovens. The strain force results are being reviewed weekly to help Tata decide which individual ovens need attention.

Once coke ovens are built and in continuous operation, they will gradually deteriorate with time. If an oven is taken out of service for an extended period the neighbouring ovens will deteriorate faster because of thermal imbalances within the battery and a spiral of deterioration can result. If too many ovens go out of service and the deterioration is severe enough, then the ovens may even have to be shut down.

The aim of Tata's work is to arrest any detrimental changes to the coke ovens and to extend the life of the ovens to at least 2023 if not beyond. The working life of the ovens is a moving date, but NRW understands it will take around 5 – 6 years to get the permissions, finance and contractors to build any new or replacement ovens. On that basis by around 2018 Tata will need to consider what it wants to do with regard to coke making at Port Talbot.

Conclusions and further actions required

Tata Port Talbot have been part of the coke ovens operators group who have proposed an alternative method of assessing and monitoring fugitive releases. Although NRW understands the group's proposal has been rejected by the Environment Agency, Tata Port Talbot is keen to apply the simpler, more frequent leak/no leak monitoring and assessment method to their ovens which also seems to offer a better indication of which ovens need to be targeted for maintenance. The logic of this approach is hard to argue with.

The life time extension projects designed to extend the working life of Morfa Coke Ovens to 2023 if not beyond are impressive in their scope and detail. Any future ovens will take several years to come to fruition but 2018 looks to be the date around which Tata will need to start thinking and NRW to start asking about the future of coke making at Port Talbot.

[END OF SECTION 2]

Cyfoeth Naturiol Cymru Natural Resources Wales	**EPR Compliance Assessment Report**	Report ID**:** 05820

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	19 May 2015

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			
n/a	n/a	n/a	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.