

	EPR Compliance Assessment Report	Report ID: 05630			
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 September 2014		Time in	N/A	Out N/A
What parts of the permit were assessed	Notification under permit condition 5.1.1a - see below Quarter 3 2014: UR/14/07, UR/14/08, UR/14/09, UR/14/10, UR/14/11, UR/14/12				
Assessment	Multiple assessment type	EPR Activity:	Installation	X	Waste Op
					Water Discharge
Recipient's name/position	Jason Heatman and Jamie-Ross Landeg, Safety, Health & Environment (SHE) Department				
Officer's name	Douglas Cowie		Date issued	07/05/2015	

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	N	
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	N	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	N	
	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	C3	6.1.2 Emissions into air
	2. Land & Groundwater	N	
	3. Surface water	C3	6.3.2 Emissions to water
	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	N	
	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	2	Total compliance score (see section 5 for scoring scheme)	8
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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 steelworks 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

Condition 5.1.1(a) of permit BL7108IM requires the operator to notify the Environment Agency* without delay of the detection of an emission of any substance which exceeds any limit or criteria specified in the permit in relation to the substance.

Condition 5.1.1(c) requires the operator to notify the Environment Agency* without delay of the detection of any malfunction, breakdown or failure of plant or techniques which has caused or may have the potential to cause pollution.

Condition 5.1.1(h) requires the operator to notify the Environment Agency* without delay of the opening of a blast furnace bleeder (A4A and/or A5A) of more than 1 minute.

Condition 5.1.2 requires the operator to submit written confirmation to the Environment Agency* of any notification under condition 5.1.1 by sending the information listed in Part A of Schedule 1 of the permit within 24 hours of such notification, and the more detailed information listed in Part B as soon as practicable thereafter.

Condition 6.1.2 requires that emissions to air from the sources specified in Table 6.1.2A - 6.1.2G shall not be exceeded.

Condition 6.3.2 requires that emissions to water from the sources specified in Table 6.3.2A and B shall not be exceeded.

The following operator notifications have been received concerning exceedances of permitted limits which occurred or were notified to us during **Quarter 3 2014** (01 July – 30 September):

1. **UR/14/07** received on 03/07/14 – A4A Blast Furnace No. 4 bleeder valves
2. **UR/14/08** received on 08/07/14 – A10 iron desulphurisation/hot metal pouring FEP
3. **UR/14/09** received on 11/07/14 – W1 Long Sea Outfall
4. **UR/14/10** received on 19/08/14 – Blast Furnace No. 4 Casthouse
5. **UR/14/11** received on 19/09/14 – Basic Oxygen Steelmaking (BOS) Plant
6. **UR/14/12** received on 24/09/14 – Heavy Fuel Oil (HFO) tank supplying Service Boilers

Compliance assessment

1. **UR/14/07A:** Schedule 1 Part A received 03 July 2014 (by email).

Particulates and blast furnace gas recorded at emission point A4A. Bleeder valves opened as designed, however the north bleeder did not re-seal resulting in an extended opening and release of emissions.

A4A: Blast Furnace 4 bleeder valves (north, south, centre, semi-clean)
No emission limit values (ELVs) are specified in the permit for A4A

Part A operator comment: *Following a burden slip on Blast Furnace 4, the bleeders opened as designed. However, the north bleeder did not re-seal as normal. Investigation in to root cause is ongoing.*

The operator subsequently provided a Schedule 1 Part B notification containing the following additional information and representations in relation to this event:

Prior to the event the furnace was operating in stable conditions. The bleeder opening was caused by a furnace slip. See graphs for details.

3 of the 4 bleeders opened at their correct pressure set points, the fourth bleeder did not open as the differential pressure did not get higher enough to require it. 2 of the bleeders re-seated after 2 seconds of pressure relief. The north bleeder did not close due to the failure of its close solenoid coil, and failed in failsafe mode

Tata have not experienced such a failure in the past, so the coil was sent back to the original equipment manufacture for analysis. There was evidence of water ingress in the coil despite the rating of the coil being IP65 (ingress protection for dust and water jets). This resulted in corrosion of copper conductor and subsequent failure. The coil was changed. The functionality of the solenoids are checked during every stop and opened & closed to prove operation.

The process control of the pressure control system has been improved in order to reduce the instances of bleeder operations.

The sequence of bleeder operation has been changed so that the semi-clean bleeder will open initially thus reducing impact.

During the furnace slip operator opened snort valve in an attempt to reduce hot blast pressure into furnace with no success. Blower was then reduced to minimum speed in preparation furnace shutdown. The blower reduced the furnace pressure to its minimum 2 minutes, 45 seconds after the initial opening. At this point the visible bleeder emissions had stopped.

No carbon monoxide (CO) detected on or off site analysers.

NRW has investigated and reviewed this event during a compliance inspection in July 2014. Our findings are detailed separately in **CAR form 5643**.

2. UR/14/08A: Schedule 1 Part A received 08 July 2014 (by email).

Hourly average for particulates recorded at emission point A10:

Start time	End Time	A10 (mg/m3)
07/07/2014 22:00	07/07/2014 23:00	50.90

A10: iron desulphurisation / hot metal pouring Fume Extraction Plant (FEP)
Permitted limit is 50.00mg/m3 (hourly average)

Part A operator comment: *Due to emission levels returning below breach limit quickly, it is suggested that the breach is due to the built up of particulate matter in "dead legs" of the system and the start up causing an initial spike. An investigation is underway to confirm this.*

We have not received any Schedule 1 Part B information from the operator for this exceedance. NRW has reviewed the performance of the BOS Plant hot metal pouring FEP with the operator during other compliance interventions in 2014. Our findings have been detailed in separate CAR forms. Taking this into account we have decided not to score the failure to submit a Part B notification in this instance.

The operator has not specified if this result has been reported as measured or if the CEM (instrument) uncertainty factor has been applied. We have therefore assessed the result on the basis that the uncertainty factor has been applied. This exceedance remains non-compliant with the permit limit and Condition 6.1.2. One **CCS Category 3** score has been recorded (**CCS reference 230996**).

3. UR/14/09A: Schedule 1 Part A received 11 July 2014 (by email).

Monthly load (June 2014) for Polycyclic Aromatic Hydrocarbons (PAHs) expressed as Benzo-a-Pyrene (B[a]P) recorded at emission point W1:

Start time	End Time	W1 (kg/month)
01/06/2014 00:00	01/07/2014 00:00	582.70

W1: Long Sea Outfall
Permitted limit is 250.00kg/month (load)

Part A operator comment: *Mass limit based on one spot concentration sample combined with monthly flow data. Will be investigated and samples taken in July to assess compliance.*

The operator subsequently provided a Schedule 1 Part B notification containing the following additional information and representations in relation to this exceedance:

Breach discovered in July whilst reporting, as a result a more frequent monitoring regime was requested to monitor the PAH levels at LSO. Sampling increased to fortnightly monitoring as opposed to monthly. Potential works areas notified and requested to investigate issue. Following high level of B[a] P at LSO on date of breach, further fortnightly samples indicated that levels had dropped to normal and that the issue had passed.

Initial investigations led to coke oven processes and issues resulting from current by-product plant improvements. Investigation around the other PAH markers does indicate that this is contradictory of coke ovens influence. The LSO phenol levels were checked and a spike of 4.5mg/l is identifiable on the 27th June, three days prior to spot sample. Although inconclusive it is evident that the introduction of a substance such as phenolic creosote at this time may have lead to the increase of PAH at the LSO for the spot sample. Despite investigations, the source of the substance has not been identified.

The operator has not specified if this result has been reported as measured or if any sampling uncertainty factor has been applied. We have therefore assessed the result on the basis that the uncertainty factor has been applied, although the magnitude of this exceedance indicates that any sampling uncertainty would have been irrelevant. This exceedance remains non-compliant with the permit limit and Condition 6.3.2. One **CCS Category 3** score has been recorded (**CCS reference 231815**) and we have issued the operator with a **Warning**.

4. **UR/14/10A:** Schedule 1 Part A received 19 August 2014 (by email).

Particulate release recorded at Blast Furnace 4 casthouse following a 'special cause' casting equipment failure. There are associated emission points for the casthouse fume extraction system at A8A & B.

Start time	End Time
15/08/2014 17:35	15/08/2014 17:38

A8A: Blast Furnace 4 casthouse fume extraction North
A8B: Blast Furnace 4 casthouse fume extraction South
Permitted limit is 15.00mg/m3 (daily average)

Part A operator comment: *At the time of the event, the east taphole was casting when it blew and broke up quickly releasing fume. Operators quickly reacted and reduced wind to the furnace to mitigate the emissions and began to plug using the remote system. However, halfway through this procedure, the gun remote cut out, so the senior operator proceeded to the hardwired system and the taphole plugged thus stopping the emission. The reasons for the taphole failure and gun failure are currently being investigated.*

The operator subsequently provided a Schedule 1 Part B notification containing the following additional information and representations in relation to this event:

The gun control safety system is controlled using Pilz safety relays. The relays failed resulting in the gun failing to operate. On investigation, the copper internals were found to be corroded due to sulphur attack. The source of the sulphur was found to be water ingress into the sub-station internal basement.

The basement conditions have been improved with a pumping system installed and sealed off to prevent gas ingress. Air conditioning added to the substation, to improve the internal air condition. The Pilz relays have now been conformally coated (a material applied to act as protection) to prevent sulphur attack, all panel connections remade and network connections up graded with additional redundancy built in.

NRW has investigated and reviewed this event during compliance inspections in 2014 and 2015. Our findings are detailed separately in **CAR form 5854**.

5. **UR/14/11A:** Schedule 1 Part A received 19 September 2014 (by email).

Particulate release recorded at BOS Plant following an explosion and metal fire at 15.30hrs on 18/09/14. Particulate and fumes from the fire overwhelmed the secondary fume extraction system and were emitted through the BOS Plant roof.

No emission limit values (ELVs) apply to fugitive emissions from the BOS Plant roof

Part A operator comment: *An explosion occurred in converter 1 leading to ejection of hot metal into surrounding area resulting in secondary fires (some involving magnesium). There were no injuries but there was a release of fume and dust from the BOS plant roof.*

The operator subsequently provided a Schedule 1 Part B notification containing the following additional information and representations in relation to this event:

The explosion was the result of highly oxidised slag retained in the converter after which hot metal was charged into the vessel leading to the reaction which led to the ejection of hot metal into the surrounding area resulting in secondary fires and release of fume. The fires were extinguished by internal and external fire fighters using sand. Damage occurred to the desulphurisation system which was subsequently repaired.

NRW has investigated and reviewed this event during compliance inspections in 2014. Our findings are detailed separately in **CAR form 5788**.

6. **UR/14/12A:** Schedule 1 Part A received 24 September 2014 (by email).

Heavy fuel oil (HFO) release recorded at the Service Boilers following a leak from a large storage tank on 17/09/14. An estimated 25 tonnes of HFO were lost to ground/land when the primary tank and secondary bund containment failed.

No emission limit values (ELVs) apply to emissions from this oil tank as it is not listed in the permit as a specified emission point

Part A operator comment: *Due to a leak in the storage of heavy fuel oil in the tank supplying the service boilers, a quantity of HFO was released into the bunded area. There was also a failure of the secondary containment of the bund which released an estimated 25 tonnes of oil outside the containment area which was sent to the on-site recovery facility.*

In order to control, a temporary earth bund was constructed in the area surrounding the tank to contain the leak, keeping the release in close proximity to the area. The contents of the tank were removed (approx 400 tonnes) to the Phoenix Oil tank area and into a temporary heated tank located near the faculty in order to maintain supply to the service boilers as required. The leak on the tank itself was also plugged.

Current situation is that the tank is now empty and clean up operations have begun. There is no release to surface water systems of controlled water systems.

We have not received any Schedule 1 Part B information from the operator for this event. NRW has however investigated and reviewed this event with the operator during a compliance inspection in September 2014. Our findings are detailed separately in **CAR form 5727**. Taking this into account we have decided not to score the failure to submit a Part B notification in this instance.

[ENDS]

**In this document 'Natural Resources Wales' means the Natural Resources Body for Wales established by Article 3 of the Natural Resources Body for Wales (Establishment) Order 2012.*

You should note that the Natural Resources Body for Wales has been formed by bringing together the Countryside Council for Wales, Forestry Commission Wales and Environment Agency Wales. The Natural Resources Body for Wales has been empowered to exercise Welsh devolved functions since 1st April 2013 and has, generally, taken over the responsibilities of the Countryside Council for Wales, the

Forestry Commissioners and the Environment Agency in Wales.

***Natural Resources Wales currently applies the same regulatory tools and systems as the Environment Agency.*

	EPR Compliance Assessment Report	Report ID: 05630	
This form will report non-compliance with your permit as determined by an NRW officer			
Site	Tata Steel Port Talbot steelworks	Permit	EPR/BL7108IM
Operator/ Permit	Tata Steel UK Ltd	Date	07 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.			✓
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**.