

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	5 June 2015	Time in	13.00 Out 16.00
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, Jamie-Ross Landeg / Safety, Health & Environment (SHE) Department		
Officers names	DMP Broom, G Baskerville & DE Cowie	Date issued	29 June 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	A	
	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	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	N	
	4. Reporting & notification	A	
h) Resource efficiency	1. Efficient use of raw materials	A	
	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
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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 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, iron plating and other supporting activities at the steelworks on Tata's behalf.

Purpose of visit/assessment

Tata Steel has trialled the use of an oil-based coal density enhancer at Morfa Coke Ovens, Port Talbot. The main purpose of this visit was to review the results of this trial and discuss proposals for an extended trial to further assess the effectiveness of the density enhancer.

NRW officers also conducted an unannounced visit to the steelworks stockyards to visually assess the environmental performance of the installation.

Person(s) present (B= both coke ovens discussion and stockyard visit, CO = CO only)

Tata Steel	Richard Leonard (CO)	NRW	Mark Broom (B)
	Jason Heatman (B)		Doug Cowie (B)
	Jamie-Ross Landeg (CO)		Guy Baskerville (stockyards only)
	Charlotte Barlow (CO)		
	Paul Dickinson (CO)		

Oil on coal at Morfa Coke Ovens

Previously Tata had reviewed the use of recovered oil from Port Talbot steelworks in the coke making process as a density enhancer. See NRW CAR reports 5849 and 5861. During this visit an overview of the trial results was presented to the inspecting officers, addressing Action 2 identified in CAR 5849 and carried forward into CAR 5861.

The current levels of use at Morfa Coke Ovens are 50kg of oil in a coal charge of 31 tonnes of dry coal. This gives a coke yield of around 24 tonnes. If the oil is omitted from the charge, then the coke yield drops by around 1 tonne.

Tata has completed its initial trial on the use of its own recovered oil, which meets its end of waste criteria, in the coke making process at Port Talbot steelworks. The initial results are that its use is no worse environmentally than using normal oil and some results indicate that its use has lowered environmental releases. No noticeable negative impact has been detected on coke production. Tata would like to progress to an extended trial and to also look at using a similar oil from Tata Steel Packaging, Trostre Steelworks, Llanelli. The Trostre oil will be trialled in a similar manner and it will be discharged directly into the final oil tank at Port Talbot and then used directly in the coke ovens.

Tata has written to NRW describing the trial results, its plans for an extended trial using its own recovered Port Talbot oil and a further trial using Trostre oil as a supplement at Morfa Coke Ovens. NRW has assessed Tata's submission and is content for Tata to conduct an extended trial provided the following conditions are met:

1. Tata must agree the start date and scope of the extended trial with NRW.
2. NRW must be notified once its extended trial is complete and Tata must submit the results to us for our consideration and comment.

3. NRW requires that sulphur and all metal determinants from Tata's previous trial are included in the testing regime for Tata's extended trial.
4. When submitting the results of the extended trial to NRW, Tata must consider any adverse effect on Benzo[a]pyrene (B[a]P) emissions as a result of using recovered oil at the coke ovens. See below comments and recommendations.

It is recommended that B[a]P or an equivalent Polycyclic Aromatic Hydrocarbon (PAH) measurement is obtained before or as soon as relevant PAH data from Defra's air quality monitoring network becomes available, to allow meaningful interpretation and data comparison. This would also show that the use of the oil-based coal density enhancer will not have an adverse effect on the existing air quality target for B[a]P.

NRW will not consider allowing routine use of Tata's recovered oil at Morfa Coke Ovens until all four conditions identified above are met. The potential effect on PAH / B[a]P emissions must be considered as part of Tata Steel's extended trial.

Stockyards inspection

In an unannounced inspection similar to the previous one at the stockyards (15/5/15 - CAR 5881), the environmental performance of the site was visually assessed from the stockyards control tower.

The following photos show the site –



Photo 1 Fines screening and intermediate storage area



Photo 2 Additive storage area



Photo 3



Photo 4



Photo 5

A shot of the sinter and rubble lay down beds (photo 3 above); looking across to the BOS plant 7 the coke ovens in the distance and the ore stockyards in the foreground (photo 4 above); and lastly looking towards the deep water harbour (photo 5 above).

In recent weeks, NRW has received several complaints about shiny dust/kish fallout from the steelworks. Local councillors have also informed us that this is a particular concern among local residents at the moment. We consider the steelworks activities normally associated with kish fallout are iron plating and steel slag pouring. We have not noted any recent incidents or emissions associated with these activities, nor are we aware of any kish complaints over the same time period that also specifically mention clouds or fumes from the steelworks.

During this visit we saw prominent stockpiles of light-grey, shiny, metallic material at the stockyards – at the 'Town' end of yard 2. We understand this material is known as Moriah fines, which is a type of iron concentrate or fine used as part of the sinter blend. We observed visible wind-blown emissions of this shiny material from the top and sides of this stockpile. Shiny fallout was also visible on the road between the sinter plant and the stockyards. We believe it is possible that wind-blown emissions of these fines may be responsible for some of the 'kish' complaints NRW has received recently.

During our visit, the stockyard tower operators confirmed it could take up to a month for the current Moriah fines stockpiles to be used up. We recognise that increased movements / disturbance of this material may mobilise it further and could result in increased wind-blown emissions. Provided that dust suppression measures are regularly applied we are content for the existing stockpiles to be worked in their current locations.

Bearing in mind the increase in complaints of shiny fallout in the Town, the working face of any Moriah fines stockpile needs to be sealed/latexed as soon as possible after each occasion it is worked to minimise release of fines by the prevailing wind. We also recommend that the sides of any existing Moriah fines stockpiles are latexed as conditions require. The leeward side of any existing stockpiles should be worked wherever possible to minimise exposure of loose fines to the prevailing wind.

Once the existing Moriah fines stockpiles are used up, Tata should consider less exposed locations within the stockyards where this material could be stored.

Tata could also consider how this material is added to the sinter blend. Adding the Moriah fines and then following up with a moister or denser material (less likely to be mobilised by the wind) may help minimise any lift-off from the blending yards.

When iron and steelmaking materials are screened, the fines are collected and transferred by conveyor to a partially enclosed bay – see photo 1 above. There is an unprotected drop between the conveyor and the top of the extended bay wall. Tata could consider using some flexible sheets to help guide the fines from the conveyor to below the retaining wall.

We were at the stockyard tower between 15.00 and 15.45hrs – a period when the PM₁₀ monitor at the Fire Station recorded an hourly mean concentration of 115 mg/m³.

Conclusions and further actions required

The initial results of the oil on coal trial at the coke ovens suggest that using recovered steelworks oil is beneficial to the coking process and the impact on emissions is barely discernible when compared to the use of other oils. Tata has formally submitted the results of its trial to NRW and has requested permission to conduct an extended trial including the use of oil from Trostre. NRW is content for this extended trial to proceed subject to a number of actions/conditions identified in this report.

The working face of a stockpile of Moriah fines or similar iron concentrate needs to be latexed as soon as the face has been worked to minimise the risk of windblown fine material being dispersed across the works and beyond. Tata needs to consider less exposed locations in which this material could be stored within the stockyards. Tata could also consider extending the wind protection on the screening fines conveyor to reduce the risk of windblown dust blowing across the sinter fines lay down area and beyond.

During the time of inspection at the stockyards tower, apart from the wind-blown issues noted with Moriah fines the inspecting officers did not observe any major continuous releases of visible dusts. Despite this lack of visible releases the PM₁₀ levels recorded at Margam Fire Station around the same time were above 115 mg/m³ as an hourly mean.

[END OF SECTION 2]

	EPR Compliance Assessment Report	Report ID: 05903	
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	29 June 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			
G1	N/A	Action 1: Tata must agree the start date and scope of the extended oil on coal trial with NRW.	As soon as possible
G4	N/A	Action 2: NRW must be notified once its extended trial is complete and Tata must submit the results to us for our consideration and comment.	To be confirmed following completion of Action 1
G4	N/A	Action 3: NRW requires that sulphur and all metal determinants from Tata's previous trial are included in the testing regime for Tata's extended trial.	Concurrent with Action 2
G4	N/A	Action 4: When submitting the results of the extended trial to NRW, Tata must consider any adverse effect on Benzo[a]pyrene (B[a]P) emissions as a result of using recovered oil at the coke ovens.	Concurrent with Action 2
C2, F3	N/A	Action 5: The working face of a Moriah fines or similar iron concentrate stockpile needs to be latexed as soon as the face has been worked to minimise the risk of windblown fine material being dispersed.	As soon as practicable
N/A		Recommendation 1: The sides of any existing Moriah fines or similar iron concentrate stockpiles should be latexed as conditions require. The leeward side of any existing stockpiles should be worked wherever possible to minimise exposure of loose fines to the prevailing wind.	Subject to ongoing compliance assessment
N/A		Recommendation 2: Tata should consider less exposed locations within the stockyards where Moriah fines or similar iron concentrate could be stored.	Subject to ongoing compliance assessment
N/A		Recommendation 3: Tata could consider how Moriah fines are added to the sinter blend. Following up with a moister or denser material (less likely to be mobilised by the wind) may help minimise any lift-off from the blending yards.	Subject to ongoing compliance assessment
N/A		Recommendation 4: Tata could consider extending the wind protection on the screening fines conveyor to reduce the risk of windblown dust blowing across the sinter fines lay down area and beyond.	Subject to ongoing compliance assessment

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**.