

Compliance Assessment Report

Report ID: CAR_NRW0035822

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

Site	Port Talbot Steelworks	Permit Ref	BL7108IM
Operator/Permit holder	Tata Steel UK limited		
Regime	Installation		
Date of assessment	10 th October 2019		
Assessment type	Inspection		
Parts of the permit assessed	October Capex meeting, Reg 61 Notices updates & other updates		
Lead officer's name	Neil Herbert & Doug Cowie	Accompanied by	N/A
Recipient's name/position	Claire Grainger – Environment Manager (S.H.E. Dept)	Date issued	18 th October 2019

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	N	
B1 - Infrastructure - Engineering for prevention and control of emissions	A	
B2 - Infrastructure - Closure and decommissioning	N	
B3 - Infrastructure - Site drainage engineering (clean and foul)	N	
B4 - Infrastructure - Containment of stored materials	N	
B5 - Infrastructure – Plant and equipment	A	
C1 - General Management - Staff competency/training	N	
C2 - General Management - Management system and operating procedures	A	
C3 - General Management - Materials acceptance	N	
C4 - General Management - Storage, handling labelling, labelling and Segregation	N	
D1 - Incident Management - Site security	N	
D2 - Incident Management - accidents, emergency and incident planning	N	
E1 - Emissions - Air	N	
E2 - Emissions - Land and groundwater	N	
E3 - Emissions - Surface water	N	
E4 - Emissions - Sewer	N	
E5 - Emissions - Waste	N	
F1 - Amenity - Odour	N	
F2 - Amenity - Noise	N	
F3 - Amenity - Dust/ fibres/ particulates/ litter	N	
F4 - Amenity - Pests/birds/scavengers	N	
F5 - Amenity - Deposits on road	N	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	N	
G2 - Monitoring and Records, Maintenance and Reporting - Records of activity, site diary/journal/events	N	
G3 - Monitoring and Records, Maintenance and Reporting - Maintenance records	N	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	N	
H1 - Resource Efficiency - Efficient use of raw materials	N	
H2 - Resource Efficiency - Energy efficiency	N	

KEY: See Section 4 for breach categories, suspended scores will be indicated as such.

A = Assessed or assessed in part (no evidence of non-compliance), N = Not Assessed, X= Action only

Number of breaches recorded		Total compliance score (see section 5 for scoring scheme)	
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If the number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response

Introduction

Pre-arranged meeting¹ to review progress with the operator's ongoing CAPEX environmental improvement projects ongoing at Port Talbot steelworks. This visit included specific updates for the following works areas:

- Morfa Coke Ovens (MCO)
- Sinter Plant
- Basic Oxygen Steelmaking (BOS) Plant

An update was also provided regarding noise abatement/attenuation measures at the Sinter Plant.

General Business Update

- We were provided with a short update on the Tata Steel Europe business and the challenges facing the European steel industry. The economic outlook for European steelmakers remains challenging and highly competitive. To meet this challenge, Tata Steel Europe is implementing a transformation plan which includes rationalising all categories of capital expenditure to ensure projects offer maximum value and sustainability ('Smart' CAPEX).
- For Tata Steel UK and Port Talbot steelworks, the impact of the transformation plan and the Smart CAPEX initiative is variable.
- We encourage the operator to maintain regular dialogue with NRW to ensure that Tata Steel can continue to meet its regulatory obligations.

Coke Oven – Coke Side arrestment system

- Progress update on the replacement Minister Stein abatement system was provided.
- The existing extraction hood has been dismantled and recycled along with any damaged sections of supporting 'bridge' metalwork
- The replacement hood structure has been delivered and has now been mostly assembled on site and awaiting installation.
- Once installed the new integrated hood system will provide better enhanced fume capture capability.
- Four of the bridge structures, used to support the coke side emission control system, have been installed and a further eight remain.
- Tata Steel has used local suppliers and contractors where possible to deliver this project to maximise its commercial value and minimise costs. This not only benefits the local economy, but also allows Tata greater flexibility in deploying resources and delivering each phase of the project.
- The crane lifts necessary to complete the project have been delayed due to unsafe windy weather conditions. Each delay can potentially increase the project costs, so careful planning and rapid deployment of lifting equipment is needed to take full advantage of suitably calm weather.
- The work was scheduled for completion in September 2019.
- The project is currently scheduled for completion by December 2019.

Comment: Whilst it is acknowledged that the work has been delayed by inclement weather, NRW are concerned with the project overrun. The operator has agreed to keep NRW informed of progress and a possible site visit may be scheduled for early December. Any projected delay beyond 1 January 2020 must be discussed with us as early as possible. **Action**

Note: Whilst the hood is in the process of being replaced a temporary (spray) abatement system is in use during coke pushes in an attempt to reduce emissions.

Morfa Coke Oven (MCO) – emissions from coke making (doors, tops & charging)

- The operator has made significant progress in addressing previous non-compliances with the ELVs for visible emissions from coke oven doors, tops and charging activities at emission point A54.
- Since March 2019 there have been **no** reported breaches of at this emission point and this improvement is noted.
- From a regulatory perspective, the focused, regular maintenance programme for doors, tops and charging combined

¹ Tata attendees: Claire Grainger, Environment Manager; Andrew Townsend, Lead Environmental Engineer; Jason Massey, Environmental Engineer; Oliver Mullen, Projects Department Manager; David Morgan, Works Area Production Manager; Kevin James, Works Area Engineer (Burdening); Lee Puckey, MCO Development Programme Manager; Wayne Hoffrock, MCO Production Manager; Stuart Lloyd, MCO Works Engineer (Seconded).

with wider investment through the coke ovens life extension project appear to be making a positive difference to MCO's environmental performance.

Comment: NRW welcome the improvements made by Tata steel however it is imperative that the maintenance regime developed by the operator (to address the emission failures) is now sustained to help ensure future permit compliance.

Regulation 61 Notice² – Coke Oven - compliance

- Progress against the previously supplied action plan (EPR Regulation 61 Notice response) was discussed. Most actions are now closed out and MCO has been compliant with all three applicable emission limits since February 2019.
- **Action:** A written update from Tata Steel confirming progress against its Regulation 61 action plan for Morfa Coke Ovens should be supplied to NRW prior to the next scheduled CAPEX meeting in January 2020.
- The actions to complete feasibility studies for a single coke oven gas (COG) collector main and retro-fitting new coke oven doors remain open. This situation does not present any permit compliance issues at present; however, Tata Steel should inform NRW when each feasibility study has been completed. The study findings can be presented to us in writing or during a future visit.

MCO life extension project

- Coke oven heating profiles were discussed. Tata Steel presented a chart showing a consistent temperature profile for an oven with refurbished heating flues. Ovens with uneven temperature profiles generally suffer from reduced coke yields and increased emissions when pushed ('black pushes'). A key component of the life extension project is a rolling programme of oven flue repairs and refurbishments.
- As the coke oven batteries age further, it may become more challenging to maintain even oven heating profiles due to progressive degradation and distortion of oven components.

Coke Oven Gas (COG) desulphurisation

- COG desulphurisation is a Best Available Techniques (BAT) requirement which is currently derogated until 31 October 2024. Tata Steel continues to explore a bio-treatment option which may allow this BAT requirement to be satisfied at reduced cost.

Sinter Plant - Shutdown

- The sinter plant has recently benefited from a 10-day maintenance outage focusing on the main stack waste gas abatement system. The outage included:
 - Cleaning and repair of internal Electrostatic Precipitator (ESP) components
 - Original Equipment Manufacturer (OEM) engineering assessment for both North and South ESPs
 - Repair/overplating of damaged outer ESP casings
 - ESP chain conveyor system repairs and maintenance
 - Optimisation of ESP rapping systems, including power-down rapping
 - Routine 'down-day' rapping of each ESP during short outages
 - Rolling refurbishment programme for double-dome ESP valves
 - Design of new trace heating system for double-dome valves, reducing moisture levels and extending valve life.
 - Routine maintenance of the sinter strand; ignition hood, mixer and coolers.
 - There was also an upgrade to the sinter plant's electrical substation
- There has been one minor issue with one of the fields in the South ESP, which has been partially affected by an electrical component failure. However, this will be corrected as part of the next short stop and is not presently causing any problems to the emissions
- Tata will be trialing trace heating system on the double dome valves. This is to explore whether the heating system will provide a means of maintaining the integrity of the seals for longer.
- NRW undertook a short inspection during the sinter plant shutdown and our comments on that visit are documented in CAR dated 26th September 2019.

² Dated 18th July 2018

Sinter Plant (A1 Emissions)

- At present, ESP maintenance is carried out every 13 weeks. While it can place increased demand on resources, this approach appears to have enabled Tata Steel to make a positive difference to main stack ESP performance. The 13-week maintenance frequency is being reviewed to determine optimal cleaning frequency, which elements are essential and if any tasks can be carried out less frequently.
- **Action:** Once Tata Steel's maintenance frequency review is complete, the outcomes should be communicated to NRW, ideally in the next six weeks. Any proposal to reduce the maintenance frequency for the sinter main stack ESPs must be discussed and agreed with the regulator first.
- An ongoing project to increase sinter process stability has complemented the ESP maintenance programme. Both appear to be benefiting from the Standard Operating Environment (SOE) initiative which is being implemented at the sinter plant. SOE has introduced daily and weekly stand-up meetings (DSUM & WESUM) which allow personnel at all levels to meet and review plant performance.
- A trial exploring the effect of chlorides (present within the sinter raw materials blend) on main stack ESP performance is ongoing. This work will inform the final design and scope of the revert/flue dust washing project.
Action: Tata Steel to communicate the chloride trial outcomes in writing to NRW.
- Tata Steel should also consider if any of the agreed operating techniques for the sinter plant need to be updated or replaced to satisfy the permit requirements listed in section 2.3.
- Tata's have taken significant measures to improving emissions from the sinter plant and this is reflected in the improving (PM) compliance seen for the A1 emission point over 2019.

Comment: Once again, NRW recognises the efforts made by the operator to improve the PM emissions from the Sinter Plant's main stack. However, we reiterate the importance of maintaining these improvement by ensuring that maintenance regimes developed are now sustained.

Regulation 61 Notice³ – Sinter Plant - compliance

- Finally, progress against the previously supplied action plan (EPR Regulation 61 Notice response) was discussed. Most actions are now closed out and particulate emissions from the sinter plant main stack have steadily improved during 2019.
- **Action:** A written update from Tata Steel confirming progress against its R61 action plan for the Sinter Plant should be supplied to NRW prior to the next scheduled CAPEX meeting in January 2020.

Sinter secondary de-dust system

- CAPEX for this important project has now been approved. Sinter secondary de-dust emissions are subject to an agreed derogation from the applicable BAT-AEL for particulates until 31 October 2020. Civil engineering works are scheduled to start in January 2020.
- The de-dust ESP is smaller than the main stack units and only has three power fields. While some learning from the main stack ESP work is transferable, the waste gas stream is different. The replacement bag filter offers much greater abatement capacity for the secondary de-dust system over the long-term.

Sinter Plant Circular Cooler – Cooling fans noise abatement improvement programme – update

- NRW continues to investigate complaints of noise perceived to be coming from Port Talbot steelworks. The sinter plant has been identified as a potential noise source – see CAR_NRW0034633 issued 10/09/19.
- The attenuator (silencer) for number 1 fan has had a slight delay but should be installed by the 23rd of October. The acoustic enclosure has already been fitted to number 1 fan.
- The remaining two fans (number 2 and 3) will be fitted with noise abatement in November as per schedule – see CAR_NRW0035750 issued 26/09/19.
- The S.H.E. team plan to undertake noise monitoring over the stop periods and after the abatement has been fitted – weather permitting.

Comment: the operator was reminded of the importance of ensuring that the noise abatement systems are installed to the above deadlines and no further slippage occur. The operator need to provide NRW with regular updates against these targets.

³ Dated 18th July 2018

Basic Oxygen Steelmaking (BOS) plant

- We were also provided with an update of current projects in progress and in development, including the BOS plant vessel 2 replacement project and associated fume extraction improvements.

BOS Converter Vessel 2

- This multi-million-pound project is complete, and Vessel 2 has been brought online. The new converter can hold 380 tonnes of molten steel and is designed to last for at least 20 years with maintenance.
- The following associated improvements have been made as part of the project:
 - New converter tilt drive gearbox
 - New 'doghouse' shroud and fume extraction system
 - New powered tapping doors
 - FEP ducting repairs and new gas flow instrumentation

BOS secondary fume extraction system

- The BOS Secondary FEP (CAPEX) project has reached Phase 2. Learning from Phase 1 is being considered to inform the scope of this work. Similarly, Vessel 2's performance will be compared with Vessel 1 to ensure any new learning is captured.
- Phase 2 is yet to be finalised, but is likely to focus on:
 - BOS converter charging bay
 - 'CAS1' fume extraction system
 - Exterior ducting and gas flow instrumentation
- We clarified that planned increased automation of the BOS converter oxygen lance drive system was subject to Tata Steel operational expenditure rather than CAPEX.

Other Matters:

Noise complaints – Hot Mill Cranes and slab handling

NRW asked Tata for their initial findings into the cause behind a series of complaints described as loud banging from the site (reported as "dropping steel barrels from height"). Tata suspect that it could be the hot mill cranes moving and placing slabs.

Action: Tata needs to urgently investigate this recent spate of noise complaints to ascertain the cause and propose mitigation options to NRW. Please provide an update within next two weeks.

Blast Furnace Bleeder Valve Release events

Action: Operator to complete investigation into cause(s) of recent notified bleeder valve releases (1-2 October 2019) and submit the investigation report (Schedule 5 Part B) to NRW.

Effluent Treatment Plant – effluent monitoring

Tata has notified NRW about breaches of the permitted emission limit for nitrogen compounds (ammonia-nitrogen + nitrate + nitrite) within effluent discharged via the Long Sea Outfall. The operator has implemented a programme of daily monitoring of the effluent to ensure any escalating trend is detected in advance of the emission limit being breached.

End of section 2

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Site	Port Talbot Steelworks	Permit Ref	BL7108IM
Operator/Permit holder	Tata Steel UK limited	Date	10 th October 2019

Section 3 – Enforcement Response

Only one box 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.

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.

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			
		Tata to ensure maintenance regimes adopted by the sinter plant and coke ovens are sustained.	Ongoing*
		- Submit report summarising the work undertaken in order to comply with the actions set out in response to Regulation 61 Notices issued on the 18th July 2018 by NRW. - Separate reports shall be prepared for the Sinter Plant and Coke Ovens respectively.	By the 31 st of December 2019*
		Present report into optimised Sinter Plant ESP cleaning and maintenance frequencies to NRW	29 th November 2019*
		Tata Steel to communicate the chloride trial outcomes in writing to NRW	Within four weeks of completion of trial
		Tata to provide update to NRW on investigation and mitigation into alleged noise complaints possibly caused by the Hot Mill Crane Slab Handling operations.	5 th November 2019*
		Provide monthly update to NRW on coke side hood replacement project.	Monthly
		Facilitate NRW visit to Coke oven.	December 2019*
		Operator to complete investigation into causes of the recent bleeder releases event (October 2019) and submit the investigation report (Part B) to NRW.	5 th November 2019*

*unless otherwise agreed with NRW

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 (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
- 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.