

Compliance Assessment Report

Report ID:
CAR_NRW0032918

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

Site	Port Talbot Steel Works EPR/BL7108IM	Permit Ref	BL7108IM		
Operator/Permit holder	Tata Steel UK Limited				
Regime	Installations				
Date of assessment	31/01/2018	Time in	10:00	Out	12:00
Assessment type	Audit				
Parts of the permit assessed	1 Management; 2 Operations; 3 Emissions and Monitoring; 4 Information				
Lead officer's name	Cowie, Douglas				
Accompanied by	Broom, Mark				
Recipient's name/position	Fiona Abbott/ Environment Manager	Date issued	19/02/2018		

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. 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	A	
B5 - Infrastructure - Plant and equipment	A	
C2 - General Management - Management system and operating procedures	A	
E1 - Emissions - Air	A	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	X	
	X	
G2 - Monitoring and Records, Maintenance and Reporting - Records of activity, site diary/journal/events	A	
G3 - Monitoring and Records, Maintenance and Reporting - Maintenance records	A	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3	3.6.2 invalid LCP CEMS monitoring periods
	X	

KEY: See Section 5 for breach categories, suspended scores will be indicated as such.

A = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,

O = Ongoing non-compliance, not scored.

Number of breaches recorded	1	Total compliance score (see section 5 for scoring scheme)	4
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If the Number of breaches recorded is greater than zero, please see Section 3 for 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 (eg. 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 advice given
- Any other areas of concern
- Any 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. Three other companies, Cambrian Stone, Harsco Metals and ICL, undertake separately-permitted slag handling, iron plating and cold mill effluent treatment activities at the steelworks on Tata's behalf.

Purpose of visit/assessment

The United Kingdom operates a Transitional National Plan (TNP) for certain combustion plant under the Industrial Emissions Directive. This plan covers the releases of sulphur dioxide (SO₂), oxides of nitrogen (NO_x) and particulate releases from qualifying Large Combustion Plant (LCP). The purpose of this intervention was to review the operator's **2017 TNP data**, the systems used at Port Talbot steelworks and to verify Tata's annual TNP submissions, if appropriate.

The relevant permit conditions are listed under Sections 1.1, 2.3, 3.1, 3.5, 3.6, 4.1, 4.2, 4.3 and 4.4 of Tata's permit.

Person(s) present

Tata Steel

Jason Heatman
Mike Launder
Sean Langstone
Debbie Boyce
Claire Grainger

NRW

Mark Broom
Doug Cowie

TNP annual submission: 2017 overview

Each year the Environmental Regulator is required to verify the TNP submissions prior to emissions trading (TNP Verification).

There are four large combustion plant (LCP) at Port Talbot steelworks that are within the TNP scheme and one boiler that is not (Boiler 3 - A62). A range of fuels are used to fire these boilers e.g. Heavy Fuel Oil (HFO), Blast Furnace Gas (BFG), Coke Oven Gas (COG), Natural Gas (NG)

and now Basic Oxygen Steelmaking (BOS) gas. All the Continuous Emission Monitoring Systems (CEMS) in operation on these boiler plants are MCERTS* approved.

The TNP started on 1 January 2016 and will continue until 1 July 2020. Details of the TNP can be found at gov.uk and on Natural Resources Wales' website.

LCP (Plant ID)	TNP reference	PPC release point	Size (MWth)	BFG	COG	HFO	BOS	NG	CEMs Parts	CEMs SO ₂	CEMs NO _x	CEMs CO	CEMs flow	CEMs O ₂	CEMs H ₂ O
Boiler 6&7 (340)	93	A52	268	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	✓
Mitchell Boiler (338)	91	A53	81	✓	✓	✓	✗	✓	✓	✗	✗	✓	?	✓	✗
Boiler A5 (339)	92	A51	50	✓	✓	✓	✓	✓	✓	✗	✗	✓	?	✓	✗
Service Boilers (337)	90	A50	114	✓	✓	✗	✗	✓	✓	✓	✓	✓	?	✓	✓
Boiler 3 (73)	Not TNP	A62	70	✓	✗	✗	✓	✓	✓	✓	✓	✓	?	✓	✓

TNP nominated site officer

There have been a few role changes within Tata Steel Port Talbot. Previously, Fiona Abbott took over the role of nominated (TNP) site officer. However, Fiona has recently announced her departure from Tata Steel so a new nominated site officer will be needed for the steelworks. Tata needs to ensure the UK TNP Registry is formally notified of this change.

Bob Lewis (Corporate Emissions Trading Manager, Tata Steel UK Ltd) remains the company's UK wide coordinator for the TNP alongside his role managing EU-ETS (emissions trading scheme) returns.

Port Talbot steelworks LCP: 2017 review

Little has changed since last year (2016) in terms of TNP returns for Port Talbot steelworks. Flow rates for LCP waste gases are derived and calculated (using emission factors) rather than measured. For Boiler 5, Boiler 3 and the Mitchell Boiler the water content is inferred from other CEMS information. All boilers have CEMS for Carbon Monoxide (CO) and oxygen (O₂) content.

One major structural change is that the Service Boilers (A50) are no longer capable of running on HFO during periods of low BFG and COG availability. There is around 50t of HFO remaining at the tank compound near the Hot Mill Reheat Furnaces, which will be moved to Phoenix Wharf Tank Farm near Port Talbot Docks. Tata has undertaken work to improve burner and therefore boiler control – installation of 'Delta-V' control systems has been progressing and is now largely complete. There has been a new CEMS installed at Boiler 3 that will go through the various Quality Assurance Level (QAL) tests.

In previous years, Tata Steel has encountered problems with its CODEL SO₂ and NO_x monitors at A52A (Boiler 6) and A52B (Boiler 7). These problems have been resolved and these monitors are now in stable operation.

Tata detected and notified NRW about two periods of invalid emissions monitoring data for Boiler 6 (21 days; NO_x and SO₂; rectified following CODEL engineer inspection) and for Boiler 7 (11 days; NO_x; rectified by CODEL remotely). The rate of invalidation days for Boiler 6 and Boiler 7 is respectively around 6% and 3% of the calendar year i.e. 94% and 97% availability of CEMS. In both cases the initial notification was made to NRW, but no formal follow up action plan was submitted as required by condition 3.6.2(a) of the current permit. **This permit non-compliance has attracted a Compliance Classification Scheme (CCS) score of 3.**

Tata should consider reviewing historic invalidation day failures to see if there are any common problems leading to these failures. For the PCME dust monitors in use across the site, Tata use their contractors (PCME) to carry out quarterly checks on the instrumentation in a proactive rather than a reactive (breakdown) manner. This approach appears to have worked well for these dust monitors with fewer breakdowns reported. Tata's gaseous CEMS i.e. CODEL monitors may benefit from a similar proactive approach.

Since last year's TNP verification, an Operator Monitoring Assessment (OMA) has been completed for the Mitchell Boiler (Discontinuous Monitoring) and Boiler 6 (CEMS). This OMA report had not been formally issued at the time of this audit, but it has since been issued as **CAR_NRW0032808**. The OMA has already covered some matters which are normally verified during this annual visit e.g. UKAS accreditation for test houses and monitoring personnel.

Tata's permit contains a condition (3.6.6) which requires the operator to submit a written report to NRW within 28 days of completion of a measurement equipment check. For LCP, this means submitting a report once a QAL check has been completed i.e. within 28 days of the monitoring organisation's final QAL report or an Annual Surveillance Test (AST). Tata Steel's QAL2 testing arrangements were examined during the recent OMA and were found to be satisfactory. It would be helpful for the purposes of this verification if the operator could forward evidence of the most recent QAL2 tests for all its boilers e.g. QAL2 report cover sheet.

LCP abnormal operations criteria

In response to **CAR_NRW0026924**, Tata Steel has outlined start-up, shutdown and abnormal operations criteria for its LCP. NRW must now formally comment on this plan, but from the discussions during this visit there appears to be a hierarchy of BFG use. In situations of low BFG availability and/or low CV of BFG from the furnaces, Boiler 3 is the earliest 'casualty' followed by the Service Boilers. Alternative fuels e.g. natural gas or COG are used to make up the shortfall in BFG. This hierarchy was not as definitive or clear on the original submission. Tata Steel will clarify this approach – possibly by using a flow chart or decision tree – before NRW comments on the proposed criteria. Once this has been finalised, Tata's engineers can apply the agreed criteria to any future ELV exceedances from their LCPs to help them decide if they are reportable to NRW.

Annual Surveillance Testing and accreditation

Tata uses its own Group Environment teams based at Swinden Technology Centre, Rotherham to carry out Annual Surveillance Tests (ASTs) for all Port Talbot steelworks LCP. Swinden are accredited to ISO 14181 and are registered with UKAS (valid certificate 042 dated 8 January 2018).

<http://www.ukas.org/testing/schedules/Actual/0312Testing%20Multiple.pdf>

TNP reporting

The reporting for TNP and non-TNP plant has previously been unclear. Tata have been using the old NERP formats e.g. AAE1. These have been replaced by the Joint Environmental Programme (JEP) formats e.g. AR1. Furthermore, it appears that the JEP forms may not have caught up with current Environment Agency development work which is designed to aid completion of LCP reports/returns and reduce errors.

When submitting quarterly RTA1 forms, Tata is requested to clearly state if any data adjustment has been undertaken e.g. application of updated calibration factors. Tata may benefit from ensuring clear distinction of roles and responsibilities in respect of TNP data and control of the final TNP submissions.

The next permit variation will formally clarify the IED Chapter III LCP reporting requirements. In the meantime, NRW has provided guidance on TNP and LCP reporting in **CAR_NRW0026924**. RTA1 forms should be emailed to the TNP Registry mailbox on a quarterly basis. Tata Steel is asked to copy in NRW's inspecting officers and the industry regulation mailbox when making submissions to the TNP Registry.

industryregulation.swwales@cyfoethnaturiolcymru.gov.uk

TNP annual submission: 2017 verification

Previously Tata had not copied their TNP returns to the industry regulation mailbox (email) address. This issue has now been resolved.

Following an examination of Tata Steel's submissions, NRW should be able to verify 2017's TNP returns for Port Talbot steelworks. It would be helpful if the operator could forward evidence of the most recent QAL2 tests for all its boilers e.g. QAL2 report cover sheet. Final confirmation of verification will be provided by email.

UK LCP Inventory reporting

Annual AR1 and HR1 forms for all Tata Steel's LCPs should be submitted to the NRW inspecting officers and industry regulation mailbox. This information is ultimately used to populate the UK LCP Inventory which is maintained by Defra.

Even when the boilers have not been operated (e.g. Boilers 8 & 9), a nil return is required.

Other matters

The particulate ELV for the Service Boilers was incorrectly set at 20.00 mg/m³ in the last permit variation (V015). It will revert to the previous ELV (40.00 mg/m³) in the latest variation (V016) which is currently being determined. In the meantime, Tata Steel needs to inform NRW about any indicative breach of the 20.00 mg/m³ ELV (email is acceptable) and formally notify NRW if emissions exceed 40.00mg/m³ (Schedule 5 Part A). NRW will not score any breaches which remain under 40.00mg/m³ once the 95% confidence interval has been removed.

Future power plant development

Tata Steel's previous power plant enhancement project (Boilers 8 & 9) is not being pursued in full for the time being. Tata has reviewed this major project which will now be broken into phases. Phases 1 and 2 (refurbishment of existing assets) are progressing; Phase 3 is to install a new 13MW turbine to replace 3 old systems – this phase has CAPEX approval to proceed.

Ground preparation works are underway to allow Phase 3 to be built. The necessary dewatering licences are being applied for through Tata Steel's consultant SOCOTEC (formerly ESG).

Phase 4 is a water treatment plant that has not been approved, nor has the next phase – Phase 5 – which is a new boiler (Boiler 8). For Boiler 8, the plan should be double checked to ensure that it does not affect other parts of the steelworks, which may entail a formal review of the whole EPR permit. There may be an opportunity to discuss this issue with NRW during our planned intervention on 16 February 2018.

Conclusions and further actions required

The outstanding actions from **CAR_NRW0031297** (2016 TNP verification) have been closed out. However there appears to be a biennial recurring issue of failing to send NRW an action plan

when there is a report made of an invalid LCP data period (required under permit condition 3.6.2). This permit non-compliance has attracted one Compliance Classification Scheme (CCS) score of 3.

The reporting of the LCP information has been better and clearer this year (2017) for both the Operator and the Regulator.

A few actions have been identified following this year's TNP verification:

1. Tata Steel needs to ensure the UK TNP Registry is formally notified when the nominated site officer for Port Talbot steelworks changes.
2. Tata Steel needs to clarify its LCP abnormal operations criteria to reflect the various modes of operation for its LCP (low BFG volume, low BFG volume and low CV etc.) NRW will comment on Tata Steel's updated proposal following submission.
3. Tata Steel needs to ensure it submits an action plan to NRW within 28 days of an invalid LCP data period being detected [permit condition 3.6.2(a)].

[ENDS]

**MCERTS is the Environment Agency's Monitoring Certification Scheme. It provides the framework for businesses to meet the regulator's quality requirements. If businesses can comply with MCERTS it provides the regulator with confidence in the monitoring of emissions to the environment. MCERTS is used to approve instruments, people and laboratories.*

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0032918**

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Site	Port Talbot Steel Works EPR/BL7108IM	Permit Ref	BL7108IM
Operator/Permit holder	Tata Steel UK Limited	Date	31/01/2018

Section 3 – Enforcement Response

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.

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			
G4	C3	Ensure a submission that meets the requirements of Condition 3.6.2(a) is made to NRW within 28 days of detecting an invalid LCP CEMS monitoring period.	01/02/2019
G1	X	Tata Steel needs to clarify its LCP abnormal operations criteria to reflect the various modes of operation for its LCP (low BFG volume, low BFG volume and low CV etc.) NRW will comment on Tata Steel's updated proposal following submission.	31/03/2018
G4	X	Tata Steel needs to ensure the UK TNP Registry is formally notified when the nominated site officer for Port Talbot steelworks changes.	01/02/2019
G1	X	Operator to forward evidence of the most recent QAL2 tests for all boilers e.g. QAL2 report cover sheet.	28/02/2018

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 (eg. 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 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 fifteen 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.