

Compliance Assessment Report

Report ID:
CAR_NRW0017534

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	01/04/2016	Time in	13:00	Out	16:30
Assessment type	Audit				
Parts of the permit assessed	Sinter Plant				
Lead officer's name	Broom, Mark				
Accompanied by	Cowie, Douglas,Baskerville, Guy,Fracchiolla, Anna				
Recipient's name/position	Fiona Abbott/ Environment Manager	Date issued	19/09/2016		

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
B1 - Infrastructure - Engineering for prevention and control of emissions	A	
B5 - Infrastructure - Plant and equipment	A	
C2 - General Management - Management system and operating procedures	A	
E1 - Emissions - Air	A	
G2 - Monitoring and Records, Maintenance and Reporting - Records of activity, site diary/journal/events	A	

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	0	Total compliance score (see section 5 for scoring scheme)	0
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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. 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 review progress with the sinter plant CAPEX projects and to discuss the recent news about the future of Tata UK.

Person(s) present

Tata Steel Fiona Abbott
 Stuart Lloyd

NRW Mark Broom, Guy Baskerville, Anna Fracchiolla and
 Doug Cowie

Tata Steel UK

Tata Steel UK Ltd has been developing a rescue plan for the steelworks in collaboration with McKinsey & Company – a management consultancy. This plan was challenging but achievable. The plan has been discussed with Tata Steel Group and it was being formally presented to Tata Steel's Executive Board at the end of March 2016.

On Tuesday evening 30/3/2016, following a Tata Steel Executive Board meeting in India, news broke that Tata wanted to sell all its UK operations. Although news about the rescue plan was expected, the scale and content of the announcement was unexpected. The implications of this announcement are not fully understood at a local level. There has been speculation about the future of the steelworks and potential buyers since the news broke. In the meantime, the work on site is focused on meeting the rescue plan targets and meeting the production plan targets.

Sinter CAPEX

This review focused entirely on the CAPEX improvement work at the sinter plant which is part way through the project team's March 2016 installation work. After a Construction (Design and Management) Regulations (CDM) safety induction to the project areas, an inspection of the areas being changed and addressed by this phase of the sinter CAPEX project was carried out.

The waste gases from the sintering process are collected in two wind mains - one north and one south. These large ducts pass out of the seaward end of the sinter plant and into two sets of electrostatic precipitators (EPs) - again one North and one South. The photo below (LHS) shows the South duct (silver colour) and the nearby north duct in the lower half of the photo going into their respective EPs and a stub going to a redundant EP that sits between the north and south EPs.



Previously a lot of work was carried out during the October 2015 stop and all the double dome valves (middle photo above) have been installed on both sets of EPs. The new and modified sinter plant conveyors have all been installed on the south side but not

(yet) on the North side (RH photo above).

Major sections of the wind main inside the sinter plant and the north transition piece have been replaced. In the right hand photo below, the silver left hand duct in the foreground was replaced in October 2015 and the cleaner silver duct shows the latest piece replaced in this March 2016 shutdown. A host of new instrumentation has been installed to help detection and mitigation of conditions conducive to glow fire formation inside the EPs – these include new oxygen, pressure and level instruments inside and on the way to the EPs.

Initial results comparing conditions before and after the October 2015 shutdown show particulate releases to be a third of the pre-work levels, but there is the caveat that production levels and throughput are less (around 70 mg/m³ versus 25 mg/m³). However the current particulate daily mean results are generally not compliant with the BAT-AEL of 40 mg/m³ as a daily mean.

The March 2016 major stop has meant the plant will be run on one-fan operation for 18 days while the South wind main is tackled. During this stop, the transition piece on the south duct was replaced and a large amount of remedial work is being carried out to reduce air ingress into the wind main. This involves replacing a 15m section of the wind main just before the transition piece, replacing the transition piece itself as well as repairing the air leaks from the transition piece up to the main stack. The holes in the top of the pipework visible in the right hand photo below have been caused mainly by corrosion and erosion from the inside of the wind main.

The left hand photo below shows the transition piece being delivered to the sinter plant. To replace the 15m section of wind main, a supporting frame had to be built and then the section was lifted into place and drawn into the sinter plant using the supporting frame. Once the new section was in place, part of the supporting frame had to be cut off and the new transition piece lifted into place. These lifts were carried out using a 1000 tonne crane but the weather and winds caused a four day delay. The project is now struggling to meet the early April 2016 deadline to return to two fan operation.



Walking down alongside the wind main, the new sections were in place but despite the work in October 2015 there were still some noticeable air ingress leaks to be heard along parts of the main. Looking down from the top of the EPs, air ingress leaks could be heard and the holes seen as the lagging had been removed to find the leaks and to start repairs (see RH photo above). There are a number of challenges with this system: the ducts are large, high up, the duct is hot when operating and the air ingress i.e. the suction is large. There was a leak on the expansion joint between the north EP and the main stack. The scaffolding operating to access this area had to be blocked as it was unsafe; a scaffolder could have been sucked against or into the hot main.



Further work on the two EPs will be staggered at the end of the summer with the south EP going out from a stop in August 2016 followed by the north EP going out in October. During these two maintenance stops, the EPs have power-off rapping

implemented. Currently the electrodes in the EPs are rapped (the dust knocked off) while the power remains on, which means that the EPs remain active while the dust drops off the electrode and some dust can be pulled back on the electrode - so reducing the collection efficiency of the EP.

Following the August and October 2016 stops, power off rapping will be used so that the supply to various sections of the ESP will be interrupted while rapping happens. This measure should reduce the re-attraction of dusts to the electrodes. The ESP power fields will also be split to allow more sections to be rapped while maintaining the integrity of the fields. For example, if the South EP has four basic power fields, when rapping takes place one field is powered off and rapped leaving the three remaining fields to abate particulates. Splitting each field into two produces eight fields rather than four. When power off rapping is used in these circumstances, only one field out of eight would be taken out in sequence, providing more particulate abatement during the rapping sequence compared to using three fields.

Subject to funds, the Project is planning to replace the north side EP dust conveyors in the same type and configuration as the south conveyors it is also attempting to repair a number of the air ingress leaks during the major stops.

Conclusions

It was clear that the sinter plant has a number of challenges to implement the various schemes. These include the size of the equipment, the height of the work that is needed to be done, the volume of work that needs to be carried out, the condition of the plant, strategic decisions made several years ago and lastly the weather conditions all contribute to the sinter plant project meeting its deadlines and targets.

EPR Compliance Assessment Report

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Site	Port Talbot Steel Works EPR/BL7108IM	Permit Ref	BL7108IM
Operator/Permit holder	Tata Steel UK Limited	Date	01/04/2016

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			

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 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.