

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

Site	Port Talbot steelworks	Permit Ref	BL7108IM (as amended)
Operator/ Permit holder	Tata Steel UK Ltd		
Date	12 November 2014	Time in	09.30 Out 11.00
What parts of the permit were assessed	6.6 Emissions of noise and vibration		
Assessment	EPR - inspection	EPR Activity:	Installation X Waste Op Water Discharge
Recipient's name/position	Jason Heatman, Lead Environmental Engineer, Tata Steel Port Talbot		
Officers names	DE Cowie, GL Evans, NA Jenkins	Date issued	28 January 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	A	
	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	N	
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	2. Noise	A	
	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	N	
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

-

Total compliance score
(see section 5 for scoring scheme)

-

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 and iron plating activities at the steelworks on Tata's behalf.

Purpose of visit/assessment

Natural Resources Wales (NRW) has received a number of recurring complaints during 2014 about noise nuisance from Port Talbot steelworks. The nature of these complaints has ranged from intermittent high-pitched alarm noises to persistent low-frequency 'droning' noise. NRW has previously requested Tata to undertake a review of alarm noise sources across its permitted installation against recognised Best Available Techniques (BAT). This work has been ongoing during 2014. Tata and NRW have also carried out monitoring work with the aim of identifying potential low-frequency noise sources at the steelworks.

The purpose of this visit was therefore:

- a) to review progress against Tata's review of alarm noise sources against BAT
- b) to discuss the low-frequency noise monitoring work already undertaken and agree a strategy going forward

Person(s) present (Office based)

Tata Steel Richard Leonard
Jason Heatman

NRW Doug Cowie
Gary Evans
Nick Jenkins

Alarm noise

Representatives from Tata's Safety, Health & Environment (SHE) Team provided an update on the review of steelworks alarm noise sources. There are many alarms on site which have a range of different functions. Some are relatively easy to access and assess e.g. vehicle reversing alarms, while others are positioned high up within the iron and steelmaking areas and are more difficult to reach without stopping production processes. This has meant the scale of work needed to assess alarm noise sources against BAT has proven more challenging and has taken a greater period of time than Tata first anticipated.

Whilst the number of complaints received by NRW relating to steelworks alarm noise has reduced, it is difficult to attribute this to any specific steps taken by Tata as its BAT review is not yet complete. Furthermore, we still require evidence to show Tata is using BAT for its on-site alarm systems. This could be shown as part of an approved Noise Management Plan (NMP) for the site or in a different format of the operator's choosing.

Tata is reminded that its new consolidated permit, which we are issuing to ensure the site meets the requirements of the new EC Industrial Emissions Directive (IED), will incorporate updated conditions in relation to noise and vibration. This will include the requirement for an approved NMP if we consider the permitted activities are giving rise to pollution outside the site due to noise and vibration. [It may be prudent for Tata to start preparing an NMP to help it address our request for a review of alarm noise sources against BAT and also assist the company in complying with the new permit conditions going forward.](#)

Further guidance regarding the production of an NMP is provided in the Environment Agency's [Horizontal Guidance Note H3: Noise Assessment and Control](#). Appendix 4 provides the outline of an NMP including the identification of individual noise sources and emissions, and their contribution to overall noise emissions from the installation.

We recognise the scale of the task to produce an NMP for a large installation such as the steelworks, therefore we suggest it could be split into a high-level document (an over-arching NMP) with individual works areas and contractors owning their own subordinate NMPs – similar to the structure used for the current steelworks Air Quality Management Plan.

Low-frequency noise

Tata has undertaken a monitoring assessment at Wildbrook, Port Talbot, in response to complaints of low-frequency noise nuisance from local residents. This assessment has proved to be inconclusive and no dominant and continuous tone was identified within the frequency range assessed (10 – 160 Hertz [Hz]).

NRW has reviewed Tata's assessment and the methodology used to undertake it. We have a few technical queries which can be summarised as follows:

1. [Tata needs to confirm the pre-trigger criteria on the sound meter used to undertake the assessment](#)
2. [Tata needs to confirm the type of log sheets used during the monitoring and if these include noise tolerance levels](#)
3. [Tata to confirm if full Fast Fourier Transform \(FFT\) spectrum analysis of its recordings can be done](#)

Once these queries have been addressed, we will be in a position to provide our final views on Tata's assessment and be able to compare it with our own monitoring work as outlined later in this report.

Tata has also examined the outlet/exhaust silencers fitted to the sinter plant fan system. The sinter plant has previously been identified as a source of low-frequency droning noise. In 2009 improvements were made by the previous operator, Corus UK, to address this issue. Large rotary fans are used to draw air through the sinter strand and then extract the waste gases from the sintering process. The silencers – also known as dampers – are calibrated to attenuate the noise produced by gases moving through the system. Their effectiveness can be reduced if solid residues build up sufficiently to affect the passage and velocity of sinter gases, bringing their flow outside the calibration range of the silencers. If the sinter fan revolutions per minute (rpm) rate changes, resulting in increased or reduced gas velocity through the system, this can also influence silencer performance.

NRW understands the silencers (as installed in 2009) were calibrated for a two-fan system where the fans run at fixed speeds either in one or two-fan mode. A series of adjustable vanes inside the wind main allows the gas flow to be altered. In 2013 Variable Speed Drives (VSDs) were fitted to the sinter plant fan system. VSDs enable more efficient use of energy by allowing the operator to vary fan speed/rpm according to sintering requirements, rather than running the fans at a constant speed. While this approach can offer significant energy savings, it can also mean that any silencer system calibrated for fixed fan speeds and fixed operating modes may need adjusting to perform effectively.

Tata's recent examination took place during a recent routine sinter plant maintenance stop and it found the silencers were clean. Although the operator feels the system is working correctly, NRW suggests the sinter plant VSDs are validated against the current silencer system to confirm the system is calibrated properly and is not causing any tonal noise issues. Such a validation exercise could be performed when a tonal noise assessment is undertaken by specialist staff for Tata's new power plant enhancement project. [We would encourage Tata to take advantage of this opportunity, which could potentially eliminate the sinter plant fans as a low-frequency noise source.](#)

Other fan systems at the steelworks were also discussed in terms of their potential to generate noise issues. A targeted review of these systems could help both parties identify potential sources of nuisance noise. The larger fans could be examined first and then an ongoing programme agreed to work through the remaining systems. We appreciate that this could require significant resource on the part of the operator. [The SHE Team confirmed it needs to consult with noise specialists to better understand the scope of work needed and provide NRW with a realistic timescale for completion.](#) This could tie-in with production of an NMP for the site using the approach suggested earlier in this report.

NRW has also undertaken its own low-frequency noise assessment and a short presentation on this work was provided to Tata. Monitoring was undertaken at five different locations in Margam and Port Talbot, including Wildbrook, over two phases in May and July 2014. We timed our first phase monitoring to coincide with a planned sinter plant shutdown as well as reduced traffic levels on the nearby M4 motorway.

Using Fast Fourier Transform (FFT) analysis we identified a distinctive tone in the 630Hz third octave frequency band and this was present at two of the five monitoring locations (Darwin Road and Abbots Close). A higher frequency was also identified at Prince Street (2.25 kilohertz). These tones fall outside what is considered to be low-frequency (as specified in NANR45 - which deals with frequencies between 10 – 160 Hz).

Some peaks were also identified within the low frequency range, but these were of short duration and could possibly be attributed to diurnal factors.

We are of the view that further monitoring work is required to assess a wider noise frequency band above 160Hz. NRW intends to undertake this monitoring on a reactive basis in early 2015 when weather conditions become favourable. We will keep Tata's SHE Team informed of progress and we suggest that a further meeting is held once our monitoring is complete.

[END OF SECTION 2]

	EPR Compliance Assessment Report	Report ID: 05789
This form will report non-compliance with your permit as determined by an NRW officer		
Site	Tata Steel Port Talbot steelworks	Permit
Operator/ Permit	Tata Steel UK Ltd	Date
		BL7108IM (as amended) 12 November 2014

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			
F2	N/A	Action 1: Tata needs to respond to NRW's queries in relation to its noise monitoring work at Wildbrook, Port Talbot.	27 February 2015
F2	N/A	Action 2: Tata needs to consult with Tata noise specialists to better understand the scope of work needed to undertake a targeted review of noise from fan systems at Port Talbot steelworks (whether as part of an approved NMP or not). Tata then needs to provide NRW with a realistic timescale for completion of this work.	27 February 2015
N/A		Recommendation 1: Tata should consider preparing an NMP to help it address our request for a review of alarm noise sources against BAT and also assist the company in complying with the new consolidated IED permit noise conditions going forward.	N/A
N/A		Recommendation 2: We would encourage Tata to take advantage of the opportunity presented by its new power plant enhancement project and conduct a validation exercise on the Variable Speed Drives (VSDs) fitted to the sinter plant fan system. This exercise could potentially eliminate the sinter plant fans as a low-frequency noise source.	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**.