

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

Site	Trostre Works	Permit Ref	BX9471IU
Operator/Permit holder	Tata Steel UK limited		
Regime	Installation		
Date of assessment	13 <sup>th</sup> February 2020		
Assessment type	Inspection		
Parts of the permit assessed	See section 2		
Lead officer's name	Neil Herbert	Accompanied by	Ieuan Davies
Recipient's name/position	Darryl Lewis – Environment & Energy Manager	Date issued	5 <sup>th</sup> May 2020

## 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)	A	
B4 - Infrastructure - Containment of stored materials	A	
B4 - Infrastructure – Plant and equipment	N	
C1 - General Management - Staff competency/training	N	
C2 - General Management - Management system and operating procedures	N	
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

<b>Number of breaches recorded</b>	0	<b>Total compliance score</b> (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**

## 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 including:
  - details of advice given;
  - any other areas of concern;
  - any actions requested;
  - any examples of good practice;
  - a reference to photos taken.

This visit was arranged primarily to assess progress with the investigations<sup>1</sup> into the effluent flume works and surface water contamination (Surface Water – east system (w2)).

We also undertook a short site visit to inspect some sections of the effluent flume and the surface water interceptor.

### Effluent Flume

- Significant works have been undertaken by TATA as part of their ongoing investigations (and repairs) into the integrity of the effluent flume, following deficiencies previously noted by the regulator.
- TATA have submitted two reports relating to the effluent flume investigation, namely:
  1. "Programme for the monitoring & improvement of the main Effluent Transmission Flume" – Oct 2018, and;
  2. "Programme for the monitoring & improvement of the main Effluent Transmission Flume – Investigation Report 2019" – Feb 2019".
- Updates from this meeting:
  - TATA have cleared the vegetation around and within the flumes to now facilitate better access to staff undertaking inspections/maintenance work. They have also removed some of the debris that had collected in the flume. This work will need to be maintained to ensure ongoing access and free flows within the flume.
  - The engineering inspection<sup>2</sup> identified some areas of the flume that should be repaired immediately<sup>3</sup>. We were informed that this work was completed in 2019, either using UCRETE or replacement fiberglass. Note: whilst these were identified by the independent engineer as requiring attention, the operator stated that there was no evidence of actual failure (resulting in significant effluent release<sup>4</sup>).
  - Further groundwater samples have been taken – see later discussion.
  - TATA also commissioned a drone survey of the flume using Infra-Red (IR) Thermography. This is a 'non-intrusive' method of surveying that may support the current inspection/monitoring approach adopted at the site. TATA have indicated that this equipment has a detectable thermal resolution of within +/- 0.1 °C. The flume effluent temperature is typically 20-30°C higher than ground ambient temperatures. TATA believe that as there is a shallow water table under the flume this will allow the detection of any elevated temperature sources into the adjacent ground i.e. suggestive of a leak.
  - Findings from first IR survey report indicate: "No evidence could be detected of any localised temperature elevation in the adjacent ground, such as might be expected corresponding to a continuous leak of warm flume waters".
  - A second IR Thermographic survey has been scheduled to be undertaken in the next few weeks (which will also include the ETP long sea outfall). **Action:** submit findings to NRW.
- Groundwaters Investigation
  - TATA have submitted two sets of groundwater data from the 2018 sampling of groundwater monitoring boreholes<sup>5</sup> in and around the effluent flume. TATA have also undertaken a further round of sampling in 2019 and these results will be submitted to NRW shortly. **Action**
  - During 2019 TATA have also installed additional groundwater monitoring boreholes in order to investigate the elevated iron levels and low pH, previously identified around BHA. These results should also be submitted. **Action**

<sup>1</sup> See previous compliance reports for full details

<sup>2</sup> Tata Report: *Programme for the monitoring & improvement of the main Effluent Transmission Flume – Investigation Report 2019 – Feb 2019*

<sup>3</sup> See 2019 report recommendations ("repair cracks in fibreglass liner" and "repair joint at junction with North flume at Effluent Plant").

<sup>4</sup>Note: some small weepage was noted at 564m although this appears localised and has since been rectified

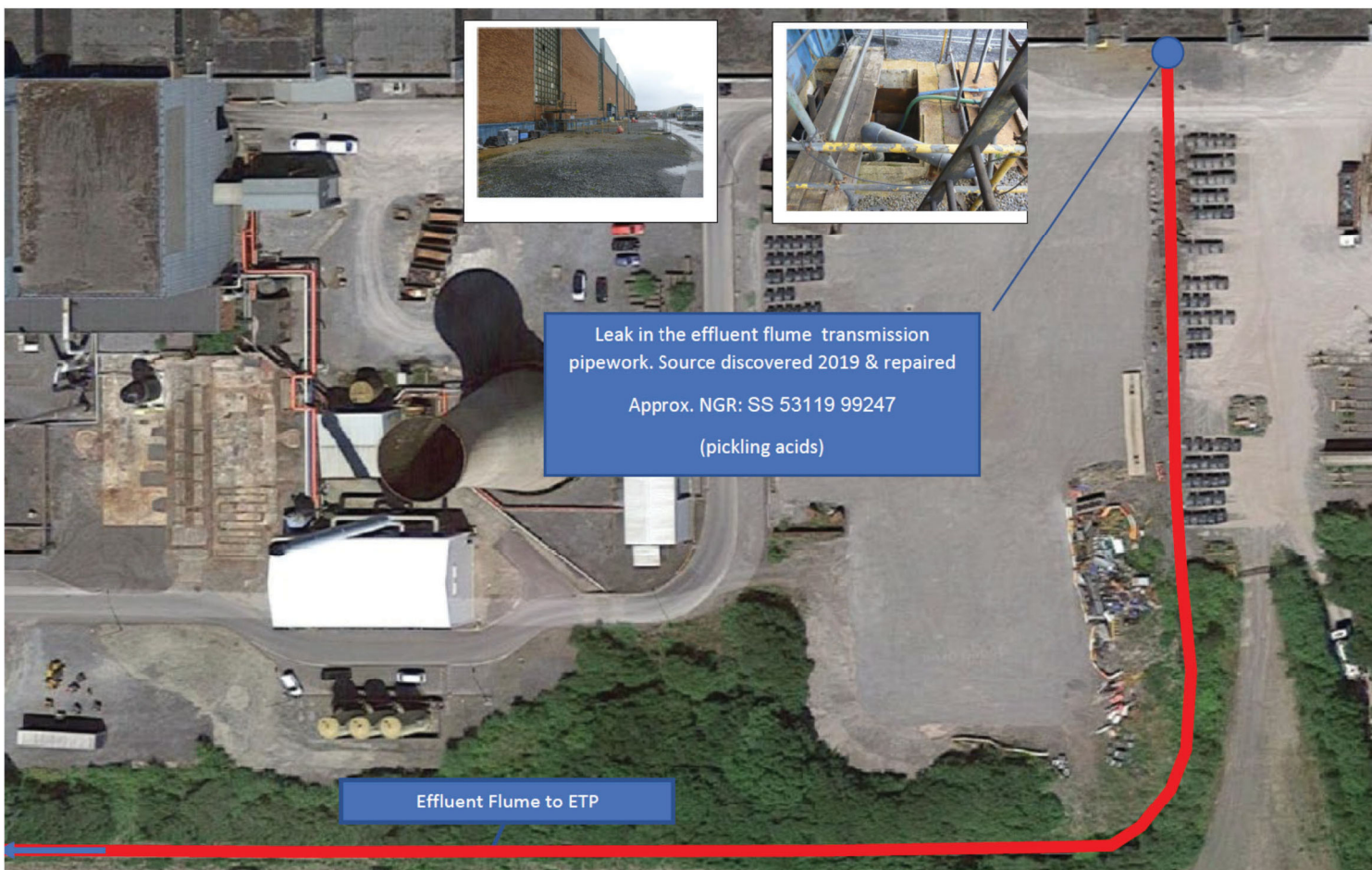
<sup>5</sup> Boreholes previously identified or installed by TATA include BHA, BHB, BHC, BHD, and BHE, LBH1, LBH2, LBH4 and DMBH.

- We now propose to seek specialist support from NRW's geoscience team to comment on the hydrogeological investigation. To facilitate this, NRW request the submission of the following information:
  - A scale plan showing the location of the existing groundwater monitoring network including the new wells installed in 2019. The drawing should also include other relevant infrastructure such as the effluent flume, SW interceptor, landfill and lagoon boundary.
  - Submit all recent groundwater results that are available, ideally in a csv format and using consistent labeling (note: some of the 2018 results used inconsistent labels (e.g. "Marsh" / BHC; DMBH).
  - Copies of any previous reports to provide a hydrogeological context for the ground around the effluent flume. For example, the hydrogeological reports used to support the landfill surrender application.
  - Copies of the borehole construction logs.

- Effluent Pipe Leak (near BHA)

Since the submission of the 2019 report, TATA's Energy and Environment Department have undertaken investigations into the elevated levels of iron they found near BHA. Additional boreholes were installed during 2019 to assist the investigation. TATA now believe that the source of the contamination has been identified (and rectified). Their investigations revealed a leak in the buried effluent transmission pipe (from the pickling line). The leak was discovered in the pipe as it emerges from the main building and then links up to the buried effluent flume at (approx.) SS 53119 99247. A temporary repair was completed immediately in 2019 and Tata have since started work to undertake a permanent repair, although the work has proven problematic as the structures are encased in thick concrete and space is limited.

The compliance implications of this event have not been considered by NRW at this time, this will be undertaken once further information (see groundwater section above) has been submitted and considered.



## Summary

There have now been two verified containment failures in the site's containment systems:

1. the leak of effluent from a leaking transmission pipe at SS 53119 99247;
2. leak of hydraulic oil from the pickling line basement, into the site's surface water system.

The investigation into both events has been difficult and challenging for TATA but the operator has confirmed that both leaks have been stopped.

Further investigations and remediation will continue, and these include:

- Tata will continue to take groundwater samples on a six-monthly basis (Note: the results should be submitted to NRW within one month, from the availability of the results (ideally in csv format and using a consistent labelling of monitoring points));
- annual inspection of the SW interceptor and regular inspections of the effluent flume;
- annual IR drone thermography (note: the findings from the survey should be forwarded to NRW as soon as the report is available);
- Work to improve access along the side of the flumes, to better facilitate visual inspection will continue (i.e. vegetation clearance etc.);
- flume debris removal – ongoing;
- should the flume inspections reveal any deficiencies requiring mitigation, interim repairs will be undertaken as described in the Oct 2018 report<sup>6</sup>, or unless otherwise agreed with NRW.

Tata's preferred, longer term, plan for improving the integrity of the effluent flume will be to pipe the effluent, under gravity, within the existing effluent flume channel (Option 2)<sup>7</sup>. The effluent flume will then perform the function of a secondary containment barrier. This will be a phased programme and the initial works, over 2020/2021 will focus on construction of the connection between the point the effluent emerges from the main building and connects to the upper reaches of the effluent flume. The work is being managed by Tata's project department and the improvement plan is reproduced below:

	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020	January 2021	February 2021	March 2021	April 2021
Pickle Flume Improvement													
Bore Hole Analysis													
East Interceptor Inspection													
Drone IR Thermography													
Access to Flume Access Path													
Flume Debris Removal													

NOTE: see end of section 2, relating to COVID 19 impacts

<sup>6</sup> Tata Report: *Programme for the monitoring & improvement of the main Effluent Transmission Flume – Oct 2018*

<sup>7</sup> Page 8, Tata Report: *Programme for the monitoring & improvement of the main Effluent Transmission Flume – Investigation Report 2019 – Feb 2019*

### Site Protection Monitoring Plan (SPMP)

- As noted in previous reports the SPMP needs to be updated to reflect the recent changes in infrastructure (e.g. new tanks) and the contamination events noted in this report. Tata's hydrogeologist (Peter Knight) was in the process of reviewing this document (see previous CAR report). Given that groundwater investigation work remains ongoing we have now agreed that the updated report can be delayed allowing this additional information to be considered, before informing the revision to the SPMP. The revised SPMP will now need to be submitted in March 2021.
- Please have regard to the relevant H5 guidance when undertaking this work. You should also have regard to the *IED baseline report* requirements (primarily to minimise duplication later when the permit is subject to their IED permit review).

### Improvement Condition 30 – effluent flume repair

*The operator shall submit to Natural Resources Wales a report for the repair (or alternatively the replacement) of the effluent transmission flume (located on the southern boundary of the main building). On approval of the report, by Natural Resources Wales, the measures outlined in the report shall be implemented to a timescale specified by Natural Resources Wales.*

- Tata have submitted two reports<sup>5 & 6</sup> to partially address IC 30. Tata have specified that their preferred option will be to construct a piped system (option<sup>6</sup> 2) to carry effluent to the ETP. They have indicated that this project will have many challenges, specifically retrofitting a system to provide the adequate falls to maintain a gravity fed flow will be difficult. Initially work this year will focus on the first run from the main building to the upper flume section. connection. The outcome of this work will then inform the next stages.
- The requirements of this condition have now been largely addressed and remediation works are now planned to be completed by the operator.

### Site Visit

- We undertook a short visit to see the location of the effluent leak that caused the high iron levels near borehole A.
- We were also shown some of the “emergency” repairs undertaken on sections of the effluent flume.
- We also inspected the surface water interceptor. There is a significant improvement since previous visits (see photograph). Little evidence of visible oils in the interceptor system was noted since the misconnection was sealed off in late 2018. This suggests that the source of the contamination has been contained.



*SW Interceptor February 2020 – no evidence of major contamination. Vegetation cleared*



*SW Interceptor June 2017 – significant contamination in surface water interceptor.*

## Persons present

Tata Steel	
Darryl Lewis	Energy & Environment Operations Manager
Steve Peters	Combustion Engineer
NRW	
Neil Herbert	Industry Regulation
Ieuan Davies	Industry Regulation

### Note: Novel Coronavirus (COVID -19)

During the compiling of this report an escalation in the threat posed by the novel coronavirus (COVID – 19) pandemic, has resulted in the imposition of several stringent measures across the United Kingdom.

These measures to control and reduce the spread and impact of the disease are having an impact on both NRW's and the operator's normal operating practices. At the time of writing all routine regulatory visits have been suspended by NRW. The situation is dynamic and extremely fluid however these restrictions are expected to remain in place for several months if not longer. During this pandemic there will be a continued expectation that operators continue to meet the conditions of their permits. Where the operator has identified an issue that is likely to result in permit non-compliance or increased environmental risk, the operator is expected to speak to the regulator at the earliest opportunity.

It is also recognised that the operator may now have difficulties in completing some of the actions set out in the action plan, to the timescales originally specified. NRW and TATA remain in regular contact and if there are any issues with these timescales these can be raised with the regulator.

End of section 2

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Site	Trostre Works	Permit Ref	BX9471IU
Operator/Permit holder	Tata Steel UK limited	Date	13 <sup>th</sup> February 2020

### 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			
		Implement action plan identified in section 2 of this report	As specified in the action plan, unless otherwise agreed with NRW
		<ul style="list-style-type: none"> <li>▪ A scale plan showing the location of the existing groundwater monitoring network including the new wells installed in 2019. The drawing should also include other relevant infrastructure such as the effluent flume, SW interceptor, landfill and lagoon boundary.</li> <li>▪ Submit all recent (2019 +) groundwater results that are available, ideally in a csv format and using consistent labeling (note: some of the 2018 results used inconsistent labels (e.g. "Marsh" / BHC; DMBH)).</li> <li>▪ Copies of any previous reports to provide a hydrogeological context for the ground around the effluent flume. For example, the hydrogeological reports used to support the landfill surrender application.</li> <li>▪ Copies of the borehole construction logs.</li> </ul>	To be agreed with NRW (due to Covid 19 restrictions).
		Submit results of any <u>future</u> groundwater monitoring analysis to NRW	One month from the availability of the results.
		Revise and update site SPMP – (see section 2 for detail).	31 <sup>st</sup> March 2021, 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](mailto: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.