Cyfoeth Naturiol Cymru
Natural Resources Wales

Natural Resources Wales permitting decisions

Tata Steel UK Limited (Trostre Works, Llanelli)

Decision Document

Contents

Permit variation

The variation number is:	EPR/BX9471IU/V007
The operator is:	TATA Steel UK Limited
The Installation is located at:	Trostre Works, Llanelli

Our Decision

We have decided to issue the variation for Trostre Works, Llanelli operated by TATA Steel UK Limited.

This variation authorises the consolidation of the environmental permit for the Trostre Works installation (EPR/BX9471IU/V006) and the environmental permit for the Trostre Boiler House installation (EPR/JP3439SZ/T004).

Both sites are operated by TATA Steel UK Limited, and the Boiler House installation is situated wholly within the Works installation boundary. The site specific details and environmental protection measures of permit EPR/JP3439SZ/T004 have been incorporated into permit EPR/BX9471IU/V006. Additionally, the site map of the installation has been updated to show the location of all emission points on site.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Changes we have made

Following the operator submitted application, we have made the following changes to permit EPR/BX9471IU;

1. *Consolidation of EPR/JP3439SZ/T004 into permit EPR/BX9471IU/V006;*

   This includes changes to the;

   - Conditions
     - Operating Techniques
     - Emissions and monitoring
     - Information
   - Table S1.1 (DAAs)
   - Table S1.2 (Operating Techniques)
   - Table S1.3 (Improvement Program)
   - Table S2.1 Raw materials and fuels
   - Table S3.1 Point source emissions to air
   - Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements
   - Site plan

The following changes have been made as part of a NRW lead variation;

2. *Change of emission point references*

   Both the boiler house and the Trostre Works used a similar emission point referencing system. This meant that a number of the emission points shared the same reference numbers within the two permits. To be able accurately provide unique reference for each emission point in the new permit, the boiler house emission point references were changed. This did not impact the monitoring or emission conditions of these points.

   See more***: Point source emission to air (pp8)***

3. *Removal of some emission points*

   With the consolidation of the two installations, the boiler house emission points which had represented the boiler-works transfer points have been removed. This is because the points are internal to the whole installation and no longer required to be identified as water emission points.

   See more: ***Point source emission to sewer (pp8)***

4. *Application of emission limits to the installation*

   Emission limits have been applied to the boiler house aerial emission points, where no limits previously existed. These have been applied in conjunction with the operator. Similarly, emission limits have been applied to water emission points from the Works, to reflect the equipment and operations present at these points already.

   See more: ***Aerial Emission limit Values (pp9)***

   Water Emission limit Values (pp10)

5. *Addition of new emission points for the boiler house*

   Following discussions with the Operator and the Area Officer, it has been noted that only one of the three boiler house steam vents on site has previously been included on the boiler house permit. This has been corrected and all similar vents are now recorded.

   See more***: Point source emission to air (pp8)***

6. *Change to the monitoring requirements of the boiler house under oil firing*

   Following discussions with the Operator and the Area Officer, and in reviewing historical operational data it has been decided to vary the reporting requirements of the boiler, under oil firing, to when it is run for more than 30mins a year. This considers the appropriate monitoring requirements for the frequency of normal operation.

   See more: ***Monitoring during oil firing (pp9)***

7. *Introduction of a new improvement condition*

   Following discussions with the Operator and the Area Officer, it has been agreed that a new improvement condition will be added to the permit. This will address a repair/replacement project requirement for an onsite effluent treatment flume.

See more: ***Improvement conditions (pp11)***

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Key issues of the decision

Receipt of application

The Application was received on 14 February 2018.The application could not be duly made as details were missing from the application forms, an OPRA file describing the new site was missing, and the submitted site plan did not include emission points from both consolidated permits. The additional evidence was provided by the Applicant by the 19 March 2018. We then notified the Applicant that the Application was duly made on the 19 March 2018. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

Legislation

NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources

All applicable European directives have been considered in the determination of the application.

The installation

The operator

We are satisfied that the Applicant is the operator of both individual installations and, following the consolidation, is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator.

The permitted activities

The regulated facility is an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations and the following directly associated activities.

- **Section 2.3 Part A(1)(a):** *Unless falling within Part A(2) of this Section, surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m^3.*

Pickling of metal strip and cleaning of metal strip on the Pickling Line, Continuous Annealing Process Line, Cleaning Line, No.4 Electrolytic Chromium Coated Steel Line and the No.5 and 6 Electrolytic Tinning Lines

- **Section 1.1 Part A(1)(a)** *Burning any fuel in an appliance with a rated thermal input of 50 or more megawatts.*

Natural gas combustion in the Continuous Annealing Process Line, the Batch Annealing Line and the tin anode furnaces.

- **Section 2.2 Part A(1)(b):** *Melting, including making alloys of, non-ferrous metals, including recovered products and the operation of non-ferrous metal foundries where;*
  (i) the plant has a melting capacity of more than 4 tonnes per day for lead or cadmium or 20 tonnes per day for all other metals, and,
  (ii) any furnace (other than a vacuum furnace), bath or other holding vessel used in the plant for the melting has a design holding capacity of 5 or more tonnes.

Annealing processes in the Continuous Annealing Process Line and the Batch Annealing Line
Manufacture of tin anodes at the tin anode plant

Directly associated activities;

- **Treatment and disposal of non-hazardous wastes by physico-chemical methods**
- **Treatment and disposal of hazardous wastes by physico-chemical methods**
- **Cold rolling of steel strip**
- **Discharge of treated effluent**
- **Collection, segregation, and temporary storage pending off-site disposal of waste**
- **Boiler House Steam generation**
- **Surface water drainage from boiler house**
- **Boiler House Water treatment**
- **Receipt, storage and preparation of raw materials**
- **Boiler House Oil storage**
- **Product and by-product processing and waste handling**

As a result of this variation and consolidation, the directly associated Boiler House has been added to the main Works' list of directly associated activities. These relate to the steam production, drainage from boiler house, boiler house oil storage, boiler house water treatment.

These details were updated to table 'S1.1 Activities' in the permit.

The site

The operator has been confirmed by the operator, and is one which we consider is satisfactory, showing the extent of the site of the facility
This plan is an updated version from the plan included in the previous permit (EPR/BX9471IU/V006). The updated plan displays the site as being controlled by a single EPR permit, and shows the emission points for both the main Works and Boiler House.
A plan is included in the permit and the operator is required to carry on the permitted activities within the site boundary.

Environmental Risk Assessment

The variation has made no change to the operation or equipment on site which would have an impact on the installation's risk to the environment. Changes performed by this variation are of an administrative nature to consolidate the two permits regulating this site into one permit. Previous requirements set by EPR/JP3439SZ/T004 to control the Boiler House facility have been incorporated into the overall Works' permit. This includes Operating Techniques for the equipment as well as emission limits and monitoring requirements.

Point source emission to sewer

In the permit document EPR/JP3439SZ/T004 (boiler house) a reference was made to two point source emissions to sewer, which lead from the boiler house installation, and transfer effluent to the surrounding Trostre Works installation. The sewer network that these point sources lead to eventually flow to the Effluent Treatment Plant, situated on the Trostre site. As the two installations are being consolidated into one the boiler house sewer points are no longer transfer points.

These emission point references have therefore been removed from the permit.

Point source emission to air

Established monitoring references for the Trostre Works have been unaffected by the consolidation. The monitoring requirements for the Boiler House have been added to the relevant tables in the Works' permit. The monitoring requirements of the Boiler House have been previously assessed as satisfactory as part of the facility's permit application process.

Prior to the consolidation, both the Trostre Works (EPR/BX9471IU/V006) Boiler House (EPR/JP3439SZ/T004) permits used a sequential alphanumeric series to reference each installations' point source emissions. When consolidated a conflict arose as both permits used the A1-A5 references to describe their first aerial emission points. In response to this, the aerial emission points for the Boiler

house facility were changed to allow them to be comfortably included into the table 'S3.1 Point source emissions to air – emission limits and monitoring requirements'. A description of the change is shown in the following table;

Boiler house aerial emissions as references in:		Source
Boiler House permit EPR/JP3439SZ/T004	**Consolidated Words permit EPR/BX9471IU/V007**	
A1	A24	Boiler House 1 flue stack
A2	A25	Boiler House 2 flue stack
A3	A26	Boiler House 3 flue stack
A4	A27	Boiler House 4 flue stack
A5	A28	Boiler House steam vent boiler flash vessel

Additionally, the operator has clarified the position of two other existing steam vents, forming part of the boiler house, which release pressurised steam under certain conditions. This is in a similar manner to reference point A28 in the table above. These have been recorded as points A29 and A30 on the permit's site plan.

Monitoring

Monitoring during oil firing

Following discussions between the operator and the area officer, it has been agreed that annual monitoring of boiler emissions of oxides of nitrogen, while the equipment is fired on oil, will not be required for years where the total operating period is less than 30 mins.

It has been reported that genuine operation of the boilers has not occurred for a significant amount of time, and that the monitoring data that is collected annually refers to testing periods. The short testing periods does not reflect the operational output of the equipment, and therefore the data collection does not hold material value. A pragmatic approach has been adopted and this monitoring will therefore not be required for periods below the assigned benchmark. This aligns with our regulatory principles in being flexible, efficient and effective (Natural Resources Wales, April 2016).

Emissions limits

Aerial Emission limit Values

Following discussions between the operator and the area officer, it has been agreed that emission limits shall be added to the permit to control certain releases where previously no limit had been applied.

From the issue of the permit, a limit of 200 mg/m^3 has been applied to releases of oxides of nitrogen from Boiler houses 1-4 (point sources A24, A25, A26, and A27) when the equipment is firing on natural

gas. Although monitoring requirements were previously in effect, there was no compliance limit associated with these points 200 mg/m^3 has been applied as this is understood to be consistent with modelling provided by the applicant as part of the application for the original boiler house permit.

No emission limit values have been added to the point source emissions for steam, A29 and A30. This aligns the limit details with the steam release point already present in the permit (i.e. A28).

This actions have been applied as part of an NRW lead variation.

Water Emission limit Values

Following discussions between the operator and the area officer, it has been agreed that emission limits shall be added to the permit to control certain releases where previously no limit had been applied.

From the issue of the permit, a monitoring requirement has been applied to the point source emission to water, W2, where the receiving water is the river Loughor. It is understood that continuous monitoring equipment is already present at this location, and the introduction of this monitoring requirements brings the permit into alignment with the existing monitoring activities. An acceptable emission range for pH has also been included, permitting the discharge to have a pH of between 5.0 and 10.0. This aligns with our regulatory principles in being flexible, efficient and effective (Natural Resources Wales, April 2016).

Reporting

The reporting requirements of Boiler House permit (EPR/JP3439SZ/T004) have been added to the relevant reporting forms previously established for the Trostre Works. This has prompted a new copy of the reporting form pack to be issued alongside the consolidated permit. The associated reporting tables with the permit have also been updated to reflect this.

Additionally, the Boiler House permit also requires that the 'Agency [sic] to be notified when oil firing commences and ceases'. This reporting requirement has been added as a notification condition to the Works' consolidated permit (EPR/BX9471IU/V007). These condition is shown below;

4.3.8 Natural Resources Wales shall be notified of the firing of the Boiler House on fuel oil:

(a) prior to the start of firing operations; and

(b) prior to the cessation of firing operations.

Operating techniques

The Operating techniques included in the permit for the Boiler House (EPR/JP3439SZ/T004) has been included in the consolidated permit for the Trostre Works. This has required an update of table 'S1.2 Operating techniques' in the Works' permit.

The permit conditions

Updating permit conditions during consolidation

As the Boiler House facility had previously been controlled by a set of conditions set from a prior permit template, the inclusion of this facility into the Trostre Works permit will appear as an update to the Boiler House' previous permit conditions. This is because the Trostre Works has previously had its permit updated to the modern template. As the wider Trostre Works site has been operating to the modern conditions, it is not expected that the update of the Boiler House conditions will result in any significant material effect upon the facility.

Use of conditions other than those from the template

Based on the information in the Boiler House permit (EPR/JP3439SZ/T004) there is a requirement for the operator to notify Natural Resources Wales of the commencement and cessation of oil firing of the Boiler House. Additionally, a limit of 90days of oil firing was also applied to the Boiler House during oil firing. These limits and requirements were moved from the Boiler House permit to the list of conditions of the consolidated Trostre Woks permit (EPR/BX9471IU/V007). These conditions are shown below;

2.3.3 The Boiler House may only be fired on fuel oil for a maximum of 90 days per year.

4.3.8 Natural Resources Wales shall be notified of the firing of the Boiler House on fuel oil:

(a) prior to the start of firing operations; and

(b) prior to the cessation of firing operations.

Raw materials

The requirements of the Boiler House Fuel oil have been moved across into the varied Works' consolidated permit (EPR/BX9471IU/V007). The requirements upon the fuels being used in the Boiler House are in place to limit the amount of sulphur that is released from the combustion process.

Improvement conditions

As a record of improvement conditions was found in the Boiler House permit (EPR/JP3439SZ/T004), these have also been added to the consolidated Works' permit. Due to conflicting improvement condition references between the permits, the references of the improvement conditions brought across from the Boiler House permit have been re-numbered. A reference to their previous designation has also been included.. A list of the improvement conditions moved from the Boiler House permit are shown in the following table;

Table S1.3: Improvement programme		
Reference	**Requirement**	**Date**
IC24	(Previously IP1 of permit JP3439SZ) The Operator shall submit to the Agency in writing, a programme of regular testing and inspection of all chemical and oil storage areas commencing with an initial audit. The audit and programme shall include the following: Inspection of primary, secondary and tertiary containment measures Inspection of coatings applied to secondary and tertiary containment Segregation of chemicals dependent upon reactivity The proposed inspection regime shall be approved by the Agency in writing and implemented throughout the installation. A summary of the initial audit shall also be submitted to the Agency for approval with improvements identified as appropriate and time scales for remedial actions to be approved by the Agency.	01/06/06
IC25	(Previously IP2 of permit JP3439SZ) The Operator shall undertake an assessment of noise from the installation taking into account the requirements of section 2.9 of the Agency Guidance Note IPPC S2.07, 4 October 2004, and IPPC H3 Part 2, Version 2, June 2004. A written report summarising the findings shall be submitted to the Agency, with any improvements identified. A timescale for implementation of any improvements shall be approved by the Agency, including a noise management plan if appropriate.	01/03/06
IC26	(Previously IP3 of permit JP3439SZ) The Operator shall undertake an assessment of subsurface structures and their potential to cause fugitive emissions to surface water and ground water. The assessment will take into account the requirements of section 2.2.5 of the Agency General Sector Guidance Note IPPC S0.01, April 2001. A written report summarising the findings shall be submitted to the Agency. A timescale for implementation of any improvements shall be approved by the Agency.	01/06/06
IC27	(Previously IP4 of permit JP3439SZ) The Operator shall submit a written Closure Plan that shall be agreed with the Agency. The Plan shall have regard to the requirements set out in section 2.11 of General Sector Guidance S0.01, April 2001.	01/06/07
IC28	(Previously IP5 of permit JP3439SZ) The operator shall submit proposals for a monitoring and impact assessment procedure for air emissions from points A1, A2, A3 and A4, to include all fuels used at the installation. The assessment procedure including timescales shall be submitted to the Agency for approval. The Operator shall undertake the assessment following approval of the procedure and timescales by the Agency.	01/01/07
IC29	(Previously IP6 of permit JP3439SZ) The Operator shall submit a proposal to the Agency to install a permanent sampling platform for monitoring emission points A1, A2, A3 and A4 in accordance with Technical Guidance Note M1. The proposal will include timescales for Agency approval.	Completed

It was also confirmed that the following improvement conditions have been previously completed, and have now been appropriately recorded in the permit.

- IC29

As IP29 was for the installation of a sampling platform on the site, no further action was required of this record, and therefore it was removed from the current permit documentation version.

Following a discussion between the NRW area officer and the operator, an additional improvement condition was added to the permit; IP13. This was an NRW lead change and details of the improvement condition can be seen in the following table;

Table S1.3: Improvement programme		
Reference	Requirement	Date
IC30	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.	End OCT 2018

Incorporating the application

We have specified that the applicant must operate the permit in accordance with descriptions in the application, including all additional information received as part of the determination process.

These descriptions are specified in the Operating Techniques table in the permit.

Environment management system

There is no known reason to consider that the operator will not have the management systems to enable it to comply with the permit conllllditions. The decision was taken in accordance with RGN 5 on Operator Competence.

OPRA

Following the inclusion of the parameters of the Boiler House facility into the OPRA file for the main Trostre Works the OPRA score calculated was 111.

References

Natural Resources Wales. (April 2016). *Our Regulatory Principles.* Cardiff.

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