

Compliance Assessment Report CAR_NRW0042410

Permit being assessed: BV7311IE.

For: Morfa Non-Hazardous Landfill , **held by:** Tata Steel UK Limited

At: Port Talbot Steel Works Abbey Works , Margam, PORT TALBOT, West Glamorgan, SA13 2NG.

Type of assessment: Site Inspection,

Reason: Routine.

On: 24/08/2023 between 09:00 and 13:00.

Parts of permit assessed: Site Inspection.

NRW Lead Officer: Rhodri Morgan, accompanied by Neil Herbert.

Report sent to: Nathan Ace , Head of Environment TSUK Operations, on 13/09/2023.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR1A - Management - General management	Assessed (A)	
IR1E - Management - Avoidance, recovery and disposal of wastes produced by the activities	Assessed (A)	
IR2G - Operations - Landfill engineering (only applicable to landfill)	Assessed (A)	
IR3C - Emissions and monitoring - Odour	Assessed (A)	
IR3F - Emissions and monitoring - Pests	Assessed (A)	
IR2C - Operations - Operating techniques	Action only (X)	

Result types are explained in more detail in the 'Important Information' section below.

Total non-compliances recorded	Total non-compliance score
0	0

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
IR2C	Action 042410/01 – Investigate the potential failure of the	15/11/2023

Criteria	Action needed	Complete by
	leachate systems concrete bund and undertake the required remedial works.	

Compliance criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Morfa Non-Hazardous Landfill

Tata Steel UK Limited (Tata) operates the Morfa Non-Hazardous Landfill (MNHL) under the provision of Permit BV7311IE. The larger waste management site at Port Talbot includes the unlined Closed Landfill (MCL) and the Hazardous Landfill (MHL).

The landfill currently consists of three engineered bio-cells and two engineered cells for non-hazardous (non-biodegradable) wastes. The non-hazardous wastes mainly comprise of steel slag, flue dusts, water treatment solids, office waste, canteen wastes and demolition rubble arising from activities at Port Talbot.

A routine inspection of the landfill and the associated treatment plant was undertaken on the 24th August 2023. NRW were escorted around the permitted installation by Owain Davies and Justyn Hodge (Darlow Lloyd & Sons) and Chris Richards (Tata).

Site Observations

Landfill Cell 2

Cell 2 is the active cell where non-biodegradable industrial wastes from the steelworks are being deposited. The current tipping face was inspected (Figure 2). A small amount of solid waste remains uncovered; however, there were no issues relating to malodorous emissions, pests, visible dust or any other amenity related condition.



Figure 1 Cell 2 - Active Tipping Area

Leachate was not observed on any of the inspected cell flanks (i.e., no evidence of leachate weeping, or breakouts were noted throughout the landfill). Surface water ponding was not observed in any of the inspected areas of the cell.

No wastes were received or deposited throughout the site inspection therefore we were unable to check the operators Level 3 waste acceptance checks. No evidence of any banned or prohibited wastes were observed throughout the inspection[1].

The recovery of waste from Cell 2 was discussed. Sections of the deposited waste are known to contain valuable secondary resources which can be extracted to mitigate the effects of rising raw material costs. The removal of the valuable material will also increase the disposal capacity of the cell. Deposits of waste within the cell has been undertaken in a specific manner to facilitate the recovery of the waste.

Landfill Bio-cells

Tata completed the permanent capping of Bio-cells A and B and the construction of the second half of Cell C throughout 2022. The CQA validation reports for both packages of work were accepted by NRW in September 2022[2].

No wastes were visible on any of the inspected areas of the bio-cells, with all waste appearing to be suitably covered with appropriate daily or intermediate cover (Figure 2). No evidence of any banned or prohibited wastes were observed throughout the inspection[3].



Figure 2 - Image taken from cap of Bio-cells A & B

Leachate was not observed on any of the inspected landfill flanks (i.e., no evidence of leachate weeping, or breakouts were noted throughout the landfill). Surface water ponding was not observed in any of the inspected areas of the bio-cells.

No issues relating to malodorous emissions, pests, visible dust or any other amenity related condition were observed throughout the inspection. No wastes were received or deposited throughout the site inspection therefore we were unable to check the operators Level 3 waste acceptance checks.

It was initially expected that the additional void capacity within the bio-cells would be sufficient until 2028. However, based on current rates of input it appears that this may have been an optimistic estimate. Tata are advised to carefully consider void capacity within the bio-cells and the timings of the construction of any future cells. Given the significant lead in time for the design, approval and construction of landfill cells, NRW advise that TATA carefully plan the process to ensure adequate biodegradable waste capacity at the landfill site.

Leachate Collection System – General

The landfills leachate collection system consists of a series of designated pumps, which transfer the leachate to the steelworks effluent drainage system via a holding tank. Vacuum tankers are accessible to the operator and can be used to supplement the leachate pumping operation should the need arise.

The majority of the infrastructure is buried except for the holding tank and number of short runs of pipework which facilitate a series of flow meters and non-return valves. The holding tank is located within an engineered concrete bund, situated within the landfills transfer station compound.

The flow meters installed throughout the leachate collection networks act as a simple leak detection system. The flow meters have recently been replaced following a site visit in October 2020^[4], where the suitability of

the original flow meters was questioned. The operator undertakes weekly checks of each flow meter as part of the leak detection protocol; this procedure will be examined in further detail in future visits.

All of the visible sections of pipework and associated equipment (flowmeters etc.) appeared to be in an acceptable condition with no evidence of any leachate leakage.

The high-level alarm associated with the holding tank has recently been replaced to allow for the more accurate gauging of the tank's contents. The alarm is linked to the pumping system and automatically activates/deactivates the pumps dependent on the level within the tank.

Leachate Collection System – Holding Tank Bund

During an inspection of the engineered concrete bund, a potential failure point along the wall/ floor joint was noted; with rainwater appearing to be escaping the confines of the bund (Figure 3).

The operator should investigate the potential failure and undertake the required remedial works to ensure the integrity of the secondary containment structure.



Figure 3 - Potential seepage through bund wall

Action 042410/01 – Investigate the potential failure of the leachate systems concrete bund and undertake the required remedial works.

Waste Transfer Station

A brief inspection of the waste transfer station was undertaken. No prohibited wastes were noted during the inspection and all waste materials were being stored internally; in accordance with the permit.

The impermeable surface of main building appeared to be in an acceptable condition, with no detectable failure points on the visible sections of concrete.

The drainage system was not inspected during the visit; however, the accessible linear drainage channels appeared to be in an acceptable condition. The operator periodically inspects and empties the drainage systems sump along with the connecting upstream drainage.

A brief discussion was held with the waste transfer station operatives who provided an overview of the waste acceptance procedures and were able to correctly identify a selection of non-complaint waste types.

Records – Waste Returns

A review of the quarterly waste returns submitted by the operator over the last two years[5] was undertaken. The total volumes of waste reported in the waste returns were compliant with the limit specified in the permit – maximum input capacity of 75,000 tonnes per annum.

Over the reviewed period, the volume of waste deposited at the landfill has remained beneath historic deposition rates. This reflects the operators successful and continuous programme of waste minimisation, treatment and recovery within the steelworks.

The waste returns document the EWC waste codes for the wastes received at the facility. These were cross checked against the waste types permitted by the permit[6]. All the wastes listed were permitted.

[1] Article 5(3) COUNCIL DIRECTIVE 1999/31/EC

[2] CAR_NRW0040436 & CAR_NRW0040427

[3] Article 5(3) COUNCIL DIRECTIVE 1999/31/EC

[4] CAR_NRW0037068 – 23rd October 2020

[5] Period covered: Quarter 1 (January – March) 2021 to Quarter 2 (April – June) 2023

[6] Schedule 2

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

If your assessment result in Section 1 is suspended, what does this mean?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry compliance criteria (used in section 1 and 2):

1. Management

- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations

- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring

- IR3A – Emissions to water, air or land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information

- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

Enforcement response

Any non-compliance with a permit condition is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or

suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or 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 our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within twenty working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 to 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.