

Compliance Assessment Report for: CAR_NRW0037040

Permit number	BW2692IM	Operator name	Tata Steel (UK) Ltd.
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Site name	Morfa Hazardous Landfill
Site address	Morfa Landfill, Port Talbot Steelworks, Port Talbot, SA32 2NG
Type of assessment	Site inspection & check sampling

Date of assessment	8 th October 2020
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Parts of permit assessed	Site inspection of landfill, check dip of leachate wells & hazard waste placement records.
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NRW Lead officer	Neil Herbert	Accompanied by	N/A
Report sent to – Name and position	Nathan Ace SHE Manager	Date	29 th October 2020

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

Part of permitted activity assessed (use action criteria below)	Assessment result	Permit condition
A1 Specified by permit	Assessed or assessed in part (A)	
B1 Infrastructure – Engineering for prevention and control of emissions	Assessed or assessed in part (A)	
B3 Infrastructure – Site drainage engineering (clean and foul)	Assessed or assessed in part (A)	
C3 General management – Materials acceptance	Assessed or assessed in part (A)	
F1 Amenity – Odour	Assessed or assessed in part (A)	
F2 Amenity – Noise	Assessed or assessed in part (A)	
F3 Amenity – Dust/fibres/particulates and litter	Assessed or assessed in part (A)	
F4 Amenity – Pests/birds and scavengers	Assessed or assessed in part (A)	
F5 Amenity – Deposits on road	Assessed or assessed in part (A)	
G2 Monitoring and records, maintenance and reporting –	Assessed or assessed in part (A)	

Part of permitted activity assessed (use action criteria below)	Assessment result	Permit condition
Records of activity, site diary/journal/events		

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

Total number of non-compliances recorded
0

2. What action is required?

Criteria	Action needed	Complete by
B1	Ref: 0037040.1 <ul style="list-style-type: none"> Operator to clear vegetation from the landfill flanks and cells containment bund. The work shall be planned and undertaken to minimise the risk of any ecological impacts. 	31 st Dec 2020
B3	Ref: 0037040.2 <ul style="list-style-type: none"> Tata to monitor and remove surface water collecting along the northern ditch lying to the north of the containment bund serving cell 1. 	Ongoing
B3	Ref: 0037068.2* <ul style="list-style-type: none"> Tata to undertake a review into the performance of the current flow meters used in the site's leachate collection system. The review should also examine the accuracy of the flow meters for the purposes of leak detection. <p>*NOTE: This action has already been documented in a separate CAR report relating to the Non Hazardous Landfill (CAR ref: NRW0037068). To avoid confusion the same action reference (and deadline) from this report has been used.</p>	31 st Jan 2021

Action 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 prosecutions and/or suspension or revocation of your permit.

No non-compliances were recorded during this assessment

4. Details of our assessment

- I was escorted around the permitted installation by Rhys Lloyd and James Davies (Darlow Lloyd & Sons) and Ben Rees (Geotechnology).
- The purpose of the visit was a routine inspection of the Morfa Hazardous Landfill (see Figure 1).
- The facility is an operational hazardous waste landfill that receives wastes primarily from Tata's Port Talbot Steelworks installation and Tata's Llanwern facility.
- The landfill currently consists of two engineered sub cells with a shared leachate collection system draining to a leachate sump.
- In the last two years the volume of wastes deposited at the landfill has been very small and a reflection of TATA's successful and continuous programme of waste minimisation, treatment and recovery within the steelworks.
- The waste types that are currently deposited at the facility¹ are almost entirely limited to insulation type wastes (Chapter 17 wastes).



Figure 1.
Aerial
Photograph,
showing the
two operational
landfill cells.

Site Observations – general

- No wastes were visible on any of the areas that I inspected, and the wastes appeared to be suitably covered with appropriate daily or intermediate cover (see figure 2).

¹ In the last two years – based on waste returns information submitted for the periods between Q2 2018 and Q2 2020.



Figure 2: photograph showing the waste deposits at the hazardous landfill, covered with appropriate intermediate cover.

- Leachate was not seen on any of the flanks inspected (i.e. no evidence of leachate weeping or breakouts were noted anywhere).
- Surface water ponding was not observed in any of the areas within the landfill, that I inspected.
- No issues relating to malodourous emissions, pests, visible dust or any other amenity related condition was observed during my inspection.
- No evidence of any banned² or prohibited wastes were observed during the inspection.

Site Observations – leachate level check

- There are two available leachate monitoring points in the landfill. One in sub cell 1 (L17) and the second in sub cell 2 (GA30). A check of the leachate level in both wells was conducted by JD in my presence. Leachate levels were below the permit's compliance limits, in both monitoring wells.

² Article 5(3) COUNCIL DIRECTIVE 1999/31/EC

Site Observations – vegetation clearance

- Vegetation clearance needs to be undertaken along the northern flanks (see figure 3) of the landfill, especially the removal of trees growing on or near the landfill's containment bund.

Please have regard to reducing any ecological impacts when undertaking any clearance works (check with TATA's ecologist before attempting any works). **Action**



Figure 3: Photograph showing vegetation along northern flank of landfill.

Site Observations – leachate collection system

- In October 2019 Tata commissioned a new pumped leachate collection system to reduce reliance on road tankering of leachate. The new system permitted leachate to be collected and removed via a network of pipes, with the leachate eventually draining into the steelwork's effluent treatment plant. Most of the infrastructure is buried, except for the balance tank, flow meter, a few short runs of pipe and the non-return valves.
- The hazardous landfill flow meter was inspected as part of this visit and it appeared to be functioning (i.e. recording flow). The flow meters installed in the leachate collection system are used by TATA to provide a simple leak detection system. Following some initial difficulties (primarily with air entering the system) which have since been resolved, the operator is now confident that the system will provide the necessary means of detecting a leak. NRW did not inspect the leak detection calculator as part of this visit due to Covid 19 social distancing restrictions.
- The flow meters at the landfill are Woltman (cold) water meters and a subsequent check of the specification for these units indicate that they are only for use with clean water, not aggressive leachates. Whilst it is acknowledged that site operatives regularly clean the unit's mechanisms on a routine basis, the manufacturer's statement does question the suitability of the unit. The manufacturer also suggests that a removeable filter element should be used to protect the mechanism. Given the aggressive nature of the leachates the suitability of the units may need to be

reviewed. We also note that the flow meters accuracy is dependent on the flow rate. At very low flows the unit may record a flow, but it would not be accurate. At flows below 1.2m³/h t won't record any flow, it is only with flows over 8³ m³/hr that the unit is accurate. The operator needs to clarify how they can be confident that the meter will provide the accuracy needed to perform their leak detection system. **Action**

Site Observations – surface water low point

- On the northern flank of sub cell 1, a low point (see figure 4), running along part of this flank is presently collecting surface water. In time this area will be developed to construct the third, and final cell however in the meantime water cannot easily drain from this point. As the surface water is resting against the site's containment bund it appears to be reacting with the slag aggregates forming the bund. This in turn appears to be affecting the pH of the surface water. Until the third cell is developed (and this low point removed) the operator needs to periodically remove this surface water and dispose of it appropriately.



Figure 4:

Action

Records– Waste Placement

- Due to Covid 19 restriction I did not review any documents kept in the site office whilst on site, although a copy of the waste placement plan was requested and provided during my visit. I have subsequently reviewed this with comments below.
- The plan records the location of hazardous waste loads deposited within the landfill. This appears in accordance with the requirements of condition 2.8.11 of the permit.

Records – Waste Returns

- I have also reviewed the quarterly waste returns submitted by the operator over the last two years⁴.
- The total volumes of waste reported in the waste returns were compliant with the limits specified in the permit.
- The returns document the EWC waste codes for the wastes received at the facility. These were cross checked against the waste types permitted by the permit⁵. All the wastes listed were permitted.

³ Based on the manufacturer's specification and assumption the flow meter is for 80mm diameter pipework

⁴ Period covered: quarter 2 2018 to quarter 2 2020

⁵ Schedule 3

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 in the aspects assessed.
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

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

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

A: Permitted activities

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, formal caution or warnings. We may also take a protective response to a permit non-compliance and this can include 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 20 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 – 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.