

Compliance Assessment Report CAR_NRW0040454

Permit being assessed: GP3030BE.

For: Shotton Works Landfill Site No 1 , held by Tata Steel UK Limited

At: Shotton Works Weighbridge Road , Deeside Industrial Park, Clwyd, CH5 2NH.

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 25/11/2022.

Parts of permit assessed: SEE NOTES (Section 4)

NRW Lead Officer: Victoria Griffin.

Report sent to: Nick Price, Senior Energy and Environment Officer on 25/11/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	C3 Minor	Condition 3.2.4(b)
E1 - Emissions - Air	Action only (X)	
E1 - Emissions - Air	Action only (X)	
E1 - Emissions - Air	Action only (X)	
E1 - Emissions - Air	Action only (X)	
E2 - Emissions - Land and groundwater	C3 Minor	Condition 3.1 & S4.1
E2 - Emissions - Land and groundwater	C3 Minor	Condition 3.1 & S4.1
E2 - Emissions - Land and groundwater	Action only (X)	
E2 - Emissions - Land and groundwater	Action only (X)	
E2 - Emissions - Land and groundwater	Action only (X)	
E2 - Emissions - Land and groundwater	Action only (X)	
E2 - Emissions - Land and groundwater	Action only (X)	
E2 - Emissions - Land and groundwater	Action only (X)	
E2 - Emissions - Land and groundwater	Action only (X)	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Assessed (A)	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3 Minor	Condition 4.3.1 (b)

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

Total number of non-compliances recorded	Total non-compliance score
4	16

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
A1	Prepare and submit a revised Hydrogeological Risk Assessment (HRA) in accordance with Condition 3.2.4 (b).	31/03/2023
E1	Investigate and provide justification for breach and apply for permit variation	31/03/2023
E1	Investigate and provide justification for breaches and apply for Permit variation	31/03/2023
E1	Investigate and provide justification for breaches and apply for Permit variation	31/03/2023
E1	Investigate and provide justification for breaches and apply for Permit variation	31/03/2023
E2	Investigate reason for increased leachate thickness in Q2 and report to NRW	31/01/2023
E2	Investigate reason for increased leachate thickness in Q3 and report to NRW	31/01/2023
E2	Investigate Q1 NH4 breaches and report to NRW. If applicable request permit variation to amend limits on basis of HRA conclusions	31/03/2023
E2	Investigate Q2 NH4 breaches and report to NRW. If applicable request permit variation to amend limits on basis of HRA conclusions	31/03/2023
E2	Investigate Q3 NH4 breaches and report to NRW. If applicable request permit variation to amend limits on basis of HRA conclusions	31/03/2023
E2	Investigate Q1 Zinc breaches and report to NRW. If applicable request permit variation to amend limits on basis of HRA conclusions	31/03/2023
E2	Investigate Q2 Zinc breaches and report to NRW. If applicable request permit variation to amend limits on basis of HRA conclusions	31/03/2023
E2	Investigate Q3 Zinc breaches and report to NRW. If applicable request permit variation to amend limits on basis of HRA conclusions	31/03/2023
E2	Investigate Q1 Nickel breach and report to NRW. If applicable request permit variation to amend limits on basis of HRA conclusions	31/03/2023
G4	All permit breaches to be reported on Schedule 6 Notifications	30/11/2022

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 prosecution and/or suspension or revocation of your permit.

You are non-compliant with your permit.

At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.

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

Review of Shotton landfill monitoring data for Q1 (January – March 2022), Q2 (April – June 2022), Q3 (July – September 2022) and Schedule 6 Part A and B

Quarterly Monitoring Returns

S4.1 Leachate Levels

(Permitted limited 1m above base of cell)

- Leachate Level in "Well" 1.1m on 12 May 2022 (Q2)
- Leachate Level in "Well" 1.2m on 22 August 2022 (Q3)

They are in breach of Condition 2.9.1 and have each been scored a C3.

S4.2 Groundwater Monitoring Data (3 point moving average)

The current permit has set limits on boreholes 1,2,9 and 10 only. The 3 point moving average breaches of the trigger levels (limits) for ammoniacal nitrogen, zinc and nickel are as follows:

Ammoniacal Nitrogen concentrations exceeding the limit (1mg/l)

- Q1 2022 - BH1 (2.91mg/l), BH9 (1.31mg/l) and BH10 (1.11mg/l)
- Q2 2022 BH1 (5.8mg/l), BH9 (1.95mg/l) and BH10 (1.65mg/l)
- Q3 2022 BH1 (3.45mg/l), BH9 (2.25mg/l) and BH10 (1.77mg/l)

Zinc concentrations exceeding the limits (BH1, BH9 & BH10 0.04mg/l & BH2 1.95mg/l)

- Q1 2022 BH1 (0.36mg/l), BH9 (0.25mg/l) and BH10 (0.11mg/l)
- Q2 2022 BH1 (0.17mg/l) and BH10 (0.15mg/l)
- Q3 2022 BH1 (0.18mg/l) and BH10 (0.75mg/l)

Nickel concentrations exceeding the limits (BH1, BH2 & BH10 0.03mg/l & BH9 0.01mg/l)

- Q1 2022 BH9 (0.15mg/l)

The above are in breach of Condition 3.1.2. Scoring not applied at this stage (see Actions)

S4.3 External Gas Monitoring Wells

Permitted limits:

Methane (CH₄) 1% v/v

Carbon Dioxide (CO₂) 1.5% v/v

Q1. January - March 2022

- CO₂ concentration exceeded permitted limit in BH1 during January (1.8% v/v) and February (2.1% v/v) 2022.

Q2. April - June 2022

- CH₄ concentration exceeded permitted limit in BH9 (5.5% v/v) during May 2022

Q3. July - September 2022

- CH₄ concentration exceeded limit in BH9 during July (2.3% v/v) and August (2.7% v/v) 2022
- CO₂ concentration exceeded limit in BH9 during July (2.6% v/v) and August (3.5% v/v) 2022
- CO₂ concentration exceeded limit in BH10 during August (1.7% v/v) 2022

The above are in breach of Condition 3.1. Scoring not applied at this stage (see Actions)

S4.8 Groundwater

Ammoniacal Nitrogen concentrations exceeding the limit (1mg/l)

- Q1 2022 BH1 (5.8mg/l), BH9 (2.9mg/l) and BH10 (2.2mg/l)
- Q2 2022 BH10 (1.1mg/l)
- Q3 2022 BH1 (1.1mg/l), BH9 (1.6mg/l) and BH10 (2.0mg/l)

Zinc concentrations exceeding the limits (BH1, BH9 & BH10 0.04mg/l & BH2 1.95mg/l)

- Q1 2022 BH1 (0.2mg/l) and BH10 (0.2mg/l)
- Q2 2022 BH1 (0.2mg/l)
- Q3 2022 BH1 (0.15mg/l) BH9 (0.06mg/l) and BH10 (1.29mg/l)

The above breaches are replicated by the breaches in S4.2 Groundwater Monitoring Data (3 point moving average) and have not been scored.

Waste Received

- Q1 Waste Received into landfill was 6.86 tonnes of Inert Construction Waste. No waste removed.
- Q2 Waste Received into landfill was 16.5 tonnes of Inert Construction Waste. No waste removed.
- Q3 Waste Received into landfill was 13.78 tonnes of Inert Construction Waste. No waste removed.

Schedule 6 Reports

Schedule 6 Notifications were submitted on 12 April 2022, 11 July 2022 and 25 October 2022 in response to breaches of ELVs for Zinc, Nickel, Ammoniacal Nitrogen, Carbon Dioxide and Methane. Tentative justifications for breaches have been provided. Measures taken or intended to be taken

are, continued monitoring and evaluation of groundwater breaches and Operator to apply for a permit variation to amend limits.

Not all breaches were reported in the Schedule 6 for Q2 and Q3. Operator must ensure that procedures are adequate and NRW are informed of all permit non-compliance. **This has been scored a C3 breach of Condition 4.3.1.**

Actions to be undertaken by Operator

- Prepare and submit a Hydrogeological Risk Assessment (HRA) to NRW with any requests for revised permit limits for groundwater by end of Q1 2023. The last HRA was undertaken and submitted in 2015 and a is overdue. **This has been scored a C3 breach of Condition 3.2.4.**
- Investigate and provide justification for breaches of CH₄ and CO₂ in external monitoring boreholes (BH1, BH9 and BH10). Submit findings to NRW by **31 March 2023**
- Where appropriate use HRA conclusions and gas assessment to support request to agree new permit limits and submit a permit variation application by **30 June 2023**. The following Industry Code of Practice (ICOP) document may prove useful for making a variation application to change perimeter gas compliance limits [Perimeter soil gas emission criteria and management](#)
- Inform NRW of all permit breaches and include within Schedule 6 Notifications going forward.

As of 1 January 2023 (Q1 2023 returns onwards), monitoring non-compliance scores will be applied as per Natural Resources Wales guidance.

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.

What are suspended scores?

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 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, 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.