

## Compliance Assessment Report CAR\_NRW0041173

**Permit being assessed:** JP3239ST.

For: Lamby Way Landfill Site EPR/JP3239ST, held by The County Council of the City and County of Cardiff

At: Lamby Way Landfill Site Lamby Way, Cardiff, Cardiff, CF3 8EQ.

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

On 31/12/2022.

Parts of permit assessed: Annual Returns

**NRW Lead Officer:** Richard Taylor.

**Report sent to:** Andrew Williamson, Contract Manager on 16/02/2023.

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

| Part of permitted activity assessed (criteria)                                                                 | Assessment result | Permit condition |
|----------------------------------------------------------------------------------------------------------------|-------------------|------------------|
| G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales | C4 No impact      | 4.2.1            |
| E4 - Emissions - Sewer                                                                                         | Ongoing (O)       | 3.1.2            |
| B1 - Infrastructure - Engineering for prevention and control of emissions                                      | C3 Minor          | S4.1             |
| E3 - Emissions - Surface water                                                                                 | C3 Minor          | 3.1.2            |
| E3 - Emissions - Surface water                                                                                 | C3 Minor          | 3.1.2            |
| G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales | C4 No impact      | 4.3.2            |
| E2 - Emissions - Land and groundwater                                                                          | C3 Minor          | 3.2.3            |
| E1 - Emissions - Air                                                                                           | C3 Minor          | 3.3.5            |

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

| Total number of non-compliances recorded | Total non-compliance score |
|------------------------------------------|----------------------------|
| 7                                        | 20.2                       |

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       |
|----------|-------------------------------------------------------------------------------|-------------------|
| G4       | Ensure reports are sent and received on time according to permit requirements | 31/03/2023        |
| E4       | Ensure limits in EPR permit are complied with                                 | Already completed |
| B1       | Return to permit limits                                                       | Already           |

| Criteria | Action needed                                                                                         | Complete by       |
|----------|-------------------------------------------------------------------------------------------------------|-------------------|
|          |                                                                                                       | completed         |
| E3       | Return to compliance limits                                                                           | 31/03/2023        |
| E3       | Return to compliance limits                                                                           | 31/03/2023        |
| G4       | On review of permit exceedances include a schedule 6 notification according to permit condition 4.3.2 | 31/03/2023        |
| E2       | Return to permit compliance limits                                                                    | 31/03/2023        |
| E1       | Return to permitted levels                                                                            | Already completed |

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.

#### 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

Lamby Way Landfill

Permit JP3239ST

Annual Reports

#### 1.0 Reports received

NRW received Reports for Q1, Q2, Q3 and Q4 and Annual reports on time.

Returns for certain permit conditions have been submitted but some details are lacking pending submission at the time of writing.

- Received pc 4.2.1 reports (Energy and water S5.3, Annual production S5.2).
- Not received - The topological behaviour for the site under the permit condition 3.6.3, including the annual topological survey, and volumetric difference calculations. 3.6.5 – remaining capacity would be a calculation of the remaining capacity for last year minus the settlement behaviour in m3. The landfill is closed to fresh deposits), meaning the remaining capacity is not representative of useable void space.

Site is required to submit the reports before 31<sup>st</sup> March 2023. A minor non-compliance is issued for not returning the reports before the permitted deadline of 31<sup>st</sup> Jan as laid down in pc 4.2.1.

**Action – Noncompliance to pc 4.2.1(g),(h), (i) and (j) for not reporting the site annual Topological, volumetric, settlement and remaining void space on time. This is a Cat 4 noncompliance without an environmental effect and carries a minor penalty.**

**Cat 4 – 0.1 points**

## 2.0 Missing data

Groundwater borehole (C7) – Borehole is blocked by debris preventing extraction.

Groundwater borehole (C15) – dry

Groundwater borehole (C20) – destroyed

Leachate well (SL1) - dry

Leachate well (SL2) - dry

Leachate well (SL3) – partially blocked

The permit requires that maintenance of the infrastructure is initiated. The dry wells and boreholes are subject to tidal movements and other topological effects and attempts at monitoring must be made. The C7 groundwater borehole and the SL3 leachate well must be investigated and repaired so the representative data can be analysed to enable a fuller picture of the sites behaviour to enable it to transition smoothly into post care.

Non maintenance of the two wells is covered by pc1.1.1 and pc 3.6.1 where the monitoring system is required to be reported. Site need to evaluate the condition of these 2 wells and return them back to use if possible. A summary report should be submitted on the results of the evaluation and any future plans to reinstate.

**Action, Site to submit a summary report on the investigation into the condition of C7 and SL3 with a view to reinstating them to the site monitoring network. Deadline for summary report is 31<sup>st</sup> March 2023.**

## 3.0 Leachate

Leachate is collected and treated in the onsite effluent treatment plant before being discharged to sewer where it is further treated by Dwr Cymru. The site has a discharge consent in place. NRW use the specific measurements of the induvial species as an indicator of leachate quality and for comparison with external ambient levels as an indicator of the landfill lining integrity. Dwr Cymru have a separate discharge consent for the site with permit limits applied. NRW also have permit limits for certain species but are more concerned with the integrity of the infrastructure to ensure that pollution does not occur to the wider environment which is why we have placed limits on the depth of the leachate within the site. Because the exceedances are not released to the wider environment, being effectively transferred to Dwr Cymru via the sites own treatment plant, there are no compliance points issued for the quality. However, the height of perched leachate above the base liner has been an issue in the past with site making improvements throughout last year and this.

Throughout 2022 the list of monthly permit trigger level exceedances is as follows.

- 10 exceedances for Ammonia from L2, L4, SL7 and SL9
- 15 exceedances for Nickel from L2, L4, SL7 and SL9
- 11 exceedances for Chloride from L2
- 2 exceedances for Mecoprop from L2 and L4

**Action The exceedances are recorded as non-compliances to permit limits under pc 3.1.2 but without an environmental effect.**

**Action Only – 0 points**

### Leachate Levels

Site reported monthly leachate levels throughout the year. Site were tasked in previous CAR forms to

reduce the leachate heads throughout the site and have made good progress against this in the last 3 years bringing them down towards the compliance limit. However, since March 2022 the trend has been rising to sit at the 2m above base level since August. Site need to return to the close management of the levels and reduce these to below 1m for Lamby Way East (L1 to L9), and 2m for Lamby Way South. (SL1-SL9). A combined minor noncompliance to permit limits has been applied for a breach of permit limits listed in pc schedule 4 table S4.1. regarding leachate depths.

**Action – A noncompliance to pc S4.1 for exceeding the permit limits for leachate levels throughout the site during 2022.**

**Cat 3 – 4 points**

#### **4.0 Surface Water**

Site reported that access to SW1 could not be obtained and issued no results throughout the period. Access to this point is required under the site permit. Site needs to attempt to restore this monitoring point or provide an explanation why data cannot be obtained.

**Action – Site to provide an explanation why data from SW1 cannot be attained and what plans are there for reinstatement. Due 31<sup>st</sup> March 2023.**

Site reported 38 breaches of the 3.35mg/l biological oxygen demand limit in 2022. There were 46 breaches of the 0.17mg/l Ammonia limits. These are non-compliances to permit condition 3.1.2 and a noncompliance has been issued for each which carries the potential to have a minor environmental effect to the wider environment. Site is to continue the monitoring regime and report monthly exceedances to permit limits via the schedule 6 route to NRW on a Quarterly basis along with the results as laid down in pc 4.3.2. A noncompliance has been issued for this too which is a noncompliance without an environment effect.

**Action – 38 exceedances of BOD limits to Surface water during 2022– noncompliance to pc 3.1.2**

**Cat 3 – 4 points**

**Action – 46 exceedances of Ammonia limits to Surface water during 2022 – noncompliance to pc 3.1.2**

**Cat 3 – 4 points**

**Action – Non reporting of the above exceedances to NRW via a schedule 6 report on a timely basis's pc 4.3.2**

**Cat 4 – 0.1 points**

#### **5.0 Groundwater**

Site reportedly cannot access C16.

**Action – Please explain why C16 cannot be accessed. This can be submitted along with the queries above due 31<sup>st</sup> March. Please summarise why the point cannot be accessed and what the future plans are for reinstatement. Summary report due 31<sup>st</sup> March 2023.**

**Ammoniacal Nitrogen.** Site reported 21 breaches of the trigger levels for Ammoniacal Nitrogen. Most were minor exceedances but there were 4 which doubled the trigger level. These have been combined into a single

Cat 3 noncompliance for the year carrying a noncompliance with a potential minor environmental effect.

**Action – 21 Groundwater Ammoniacal Nitrogen permit trigger level breaches throughout 2022. Noncompliance to pc 3.2.3 with the potential to cause a minor environmental effect.**

**Cat 3 – 4 points**

**Cadmium.** Site reported a single exceedance of cadmium for May 2022. The permit limit was 5mg/l with the reading at 0.53mg/l. However, when uncertainty factors are included, the limits were not exceeded. This is a non-scoring breach of permit limits.

Site remained compliant to limits throughout 2022 for Nickel, Mecoprop and Xylenes.

#### **6.0 Perimeter Gas Data**

Site carries permit limits for CH<sub>4</sub> (methane) and CO<sub>2</sub>. These differ into two phases across the site with G1 – G13 having 1.2% v/v and G14 – G23 having 1% above agreed background concentrations. As Global Methane contents are approximately 2000ppb (0.0002%) and CO<sub>2</sub> fluctuates around 400ppm (0.4%) any CO<sub>2</sub> reading over 2% is used as a conservative value. As CH<sub>4</sub> is negligible, any value over 1.5% above background is used as a conservative estimate.

From the annual report, CO<sub>2</sub> values for 11 of the 17 wells averaged above 2% for 2022. For CH<sub>4</sub>, 2 wells out of the 17 listed averaged over 1.5% with one GA006 reading over 9% on average. This indicates a leak in the infrastructure which site needs to investigate,

**Action – Site to investigate the methane emission from GA006 and bring down to permit limits. Due 31<sup>st</sup> March 2023.**

**Action – Site have reported multiple emission limit breaches for CH<sub>4</sub>, and CO<sub>2</sub> content from several wells throughout the year. These breach the limits of pc3.3.5. A minor nonconformance has been issued for a permit limit breach with a potential to have an environmental effect.**

**Cat 3 – 4 points**

.....

**End.**

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](mailto: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](mailto: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.