

Compliance Assessment Report CAR_NRW0039092

Permit being assessed: BP3795FD.

For: Ferry Road Landfill, held by The City of Cardiff Council

At: Ferry Road, Grangetown, Cardiff, Glamorgan, CF11 0JL.

Type of assessment carried out: Site Inspection, Reason: Incident Response (Incident number 2101889).

On 25/11/2021 between 10:00 and 11:30.

Parts of permit assessed: B2 Infrastructure – Closure and decommissioning

NRW Lead Officer: Yeliz Marshall.

Report sent to: Andrew Williamson, Contract Manager on 17/12/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B2 - Infrastructure - Closure and decommissioning	Ongoing (O)	38

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

Total number of 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
B2	<p>1) Seek advice from a reputable landfill engineering expert to help support efforts to identify surface water drain connection point in the landfill, in order to disconnect it from surface water drains pipeline.</p> <p>2) Add further sampling points on the monitoring schedule for chemical analysis in the proposed (see Figure 5) areas along the surface water drains runs parallel to the back of the Cardiff retail park.</p>	31/01/2022

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.

We are currently considering taking enforcement action against you for the non-compliance recorded above. We will contact you in due course.

4. Details of our assessment

Ferry Road Closed Landfill site visit undertaken on 25.11.2021 by Yeliz Marshall Senior Regulation Officer. This visit was a site walkover scheduled as a follow up visit to assess progress of the actions assigned on the operator – Cardiff Council in the previous CAR report issued on the 25.03.21 (CAR_NRWBP3795FD260321), in particular, for the following assigned actions:

- *Please operate the leachate collection system to its purpose to stop, completely, leachate entering into the surrounding environment, as a matter of urgency, and update NRW when actioned; and*
- *Submit monthly groundwater, surface water (where pollution is occurring) and leachate level monitoring test results to NRW in order to assess the impact of the urgent mitigation measures, until the leachate levels meet the design principle of the leachate management system; leachate to be maintained at a level of around 4.0m, just below the level of the surrounding groundwater.*

Contract Manager and Depot & Infrastructure Manager, representatives of the operator, accompanied the officer on the visit. The representatives of the operator were co-operative, open and transparent in the site inspection and in their communications before and after the visit.

Background & purpose of the visit:

There are a number of sub-actions for the each action assigned on the operator in the CAR report issued in March, due to complexity of this site. These sub-actions are agreed with the operator with deadlines set against them each and formalised in the form of an action plan. The operator is responsible for providing progress updates against these sub-actions and have been providing regular updates to NRW for them in a timely manner.

The aim of this site visit is to view and substantiate some of the key engineering improvement works that are reported as completed and in progress of being completed by the operator as part of the requirements set out in the action plan. In particular, to inspect and discuss the improvement works applied to pumping station T1, investigation and improvement work applied to the leachate collection point that feeds into T1 and ongoing investigation works being undertaken to identify the surface water drains connection point in the landfill, with the aim of disconnecting it. And, to communicate and agree the additional monitoring requirements with the operator, which were identified to help support efforts to identify the surface water connection point in the landfill.

Observations:

Since NRW's site visit in February 2021, the pumping station T1 has been operating manually

on a daily basis, as an urgent response to stop the pollution entering into surrounding environment, but as this pumping station is a key part of the leachate collection and removal infrastructure, improvements needed to be undertaken for the pumping station to be better maintained, monitored and ultimately automated therefore the following improvement works are agreed with the operator;

- Installation of a new control panel, pulsar level sensor and telemetry at Pumping Station T1 for fully automated pumping of leachate (Figure 1): **Completed**

The pump is now automatically stops/starts pumping when the chamber leachate level reaches at defined levels. It was explained by the operator that stop/starts are decided by several factors, power supply, incoming flow, storage in the event of pump failure. Automated stop level is set at 0.4m and the first pump start is set when a depth of 1.1m is reached. Also, there is duty assist, so if the duty pump fails the second pump will start when the level hits 1.5 meters. There is also the telemetry to notify of any failures and high level alarms.

During the visit, the pumping station T1 was inspected. The telematics were found to be functional and operating automatically with daily alerts indicating hours operated and levels recorded. The operator was able to present the daily alerts sent by the system on their phone during the inspection (Figure 2). It was also observed that the security to the pumping station was improved with a new gate (Figure 3) and locks to the leachate chamber cover and an additional drain cover (Figure 4) that allows safer access.

Before the visit, it was communicated to the operator, the need to have additional sampling points to determine if leachate and/or other sources of pollution is entering into surface water drain to Cardiff Bay that runs parallel to the back of the retail park from upstream. Also, to determine if the surface water drain to north of McDonalds (see Figure 5) that runs across the retail park is still connected to the landfill. The proposed areas for the sampling points are circled in purple on figure 5 along the surface water drain to Cardiff Bay, during the visit, it was confirmed by the operator that a sample from the each area highlighted in Figure 5 will be added on the monitoring schedule.

The following action was assigned on the operator :

ACTION: Add further sampling points on the monitoring schedule for chemical analysis in the proposed (see Figure 5) areas along the surface water drains which run parallel to the back of the Cardiff retail park.

- Investigation and improvement works for the leachate collection point that feeds into T1: **Completed**

The operator confirmed that the chamber feeds into T1 (Figure 6) located, leachate collector pipe along boundary wall was surveyed to confirm fall to T1. This was inspected and the flow was confirmed from both ends of the pipe. Improvement work was undertaken where a connection pipe was installed (Figure 7) to increase leachate flow in to T1 pumping station. During the visit, this was observed by the office via the manhole shown in Figure 6.

- Investigation work to identify the location of the surface water connection point(s) in the landfill with a view to disconnect it. **In progress**

A trial pit was undertaken to locate the surface water connection point in the landfill prior to

the visit, in the area near the gated entrance of the landfill on Dunleavy drive. During the visit, the trial pit location was inspected (Figure 8). The operator confirmed that they were unable to identify the surface water connection point as they were not able to dig deeper into the waste deposit layers.

A CCTV survey of the surface water pipe running between the Aldi car park to the landfill site (can be seen on Figure 5 – the landfill leachate management system) was planned to take place in December 2021, which was completed subsequent to the visit. The operator confirmed via email the existence of what they believe as the concrete bung at the end of the leachate collector pipe (Figure 9) as the outcome of the survey. This is believed to be part of the old foul system now designated as the surface water system and is a starting point for the operator to survey the system to locate where it exists in the landfill. The chamber is currently buried and the operator proposed to uncover it for access to confirm the bungs integrity. It also shows a rodding point (Figure 10) which if still connected will be capped.

The following action was assigned on the operator:

ACTION: Seek advice from a reputable landfill engineering expert to help support efforts to identify surface water drain connection point in the landfill, in order to disconnect it from surface water drains pipeline.

Other:

The operator discussed the following points:

Procurement of asset management software to document all leachate & gas infrastructure to record all maintenance history and profile cost. **In progress**

Replacement of PLC (programmable logic controllers) for pump stations B, C & D. **In progress**

Procurement of a 3rd party maintenance contract to undertake the following: **In progress**

- Remedial works to the chambers;
- Inspection & servicing of all pneumatic leachate pumps and compressor; and
- Following completion of above points, regular maintenance of the leachate management system.

PLEASE SEE THE ATTACHMENT FOR FIGURES

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.