

Compliance Assessment Report CAR_NRW0040480

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 12/09/2022 between 13:00 and 15:00.

Parts of permit assessed: General Management and Incident Management and Infrastructure – Closure and decommissioning

NRW Lead Officer: Yeliz Marshall.

Report sent to: Matthew Wakelam, Assistant Director Street Scene on 10/10/2022.

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	Investigate the root cause of why Pumping Station D leachate collection tank does not receive leachate to its full capacity. And, propose & undertake remedial works to restore its function to its original design.	31/03/2023

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 12 09 2022 by Yeliz Marshall Senior Regulation Officer (South Central Waste Regulation Team). This visit was a site walkover scheduled as a second follow up visit to assess progress of the actions assigned on the operator – Cardiff Council in the CAR report issued on the 26.03.21 (CAR_NRWBP3795FD260321).

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

Background & purpose of the visit:

There are a number of sub-actions under each action assigned to the operator in the CAR report issued in March 2021, due to the complexity of this site. The sub-actions are agreed with the operator, with respective deadlines, 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, as it was also done in the previous CAR issued in 25 November 2021. In particular, to inspect and discuss the improvement works applied to leachate pumping and collection infrastructure, investigation and engineering works undertaken to identify the chamber containing the pipework connecting the surface water drains to the landfill leachate collection system, and the subsequent disconnection of that pipework. And, to discuss the installation of the new groundwater monitoring network, as agreed following the submission of the Hydrogeological Risk Assessment.

Observations:

A walkover began at the Pumping Station C compound, which is operated 2-3 times a day manually (this process is in process of being automated shortly) to pump leachate out and discharge it to Welsh Water sewer system. The full process of pumping, filling up the tank and discharging to the sewer system was observed during the visit (see photo 1 for leachate collection tank).



Photo 1: Pumping station C – leachate collection tank

Another part of the leachate collection infrastructure visited was the compressor pump (see photo 2) at the landfill gas flare compound. The function of it is to pump out leachate from the deep leachate wells, which is also operated daily. Currently, it is thought to be drained to Pumping Station C via the gravity drains. However, originally the leachate collected via this pump was designed to drain to the Pumping Station D. Currently, Pumping station D is not receiving leachate to its full capacity, potentially, because due to pipework installed (due to some issues at the retail park) some years after the site was closed, disrupted the leachate drainage mechanism.

The following action was assigned on the operator:

ACTION: Investigate the root cause of why Pumping Station D leachate collection tank does not receive leachate to its full capacity. And, propose & undertake remedial works to restore its function to its original design.

Following the visit, it was confirmed by the CC representative via email that The CC is investigating the root cause of the issue at the Pumping Station D with a view to resolve it. And, they have added this work stream on the action plan.



Photo 2: Compressor pump for pumping station D – located at the landfill flare compound

Next, the leachate extraction infrastructure located at the back of the Aldi store was visited, this is where the leachate was directly connected to the surface water system draining into Cardiff Bay, as it was historically designed for this purpose before the landfill was re-engineered back in 2000s. It is thought that the access to this part of the infrastructure (see photo 3) was lost during the regeneration of the area over the years and was only found with significant investigative engineering efforts by the CC in 2022 and it was disconnected in May of the same year. It is understood that the CC is in process of ensuring that this part of the infrastructure is not lost again by improving the security and visibility of it and

digitally documenting its location.

- Investigation work to identify the location of the surface water connection point(s) to the landfill leachate collection system with a view to disconnect it. **Completed**



Photo 3: Chamber that contains now disconnected pipework at the at the back of Aldi store

Lastly, the landfill infrastructure upgrade work at the current park area was visited and it was observed that the upgrade was mostly completed to what appears to be a high standard. Gravel paths were created throughout the site to improve access to each part of the infrastructure that operates the leachate & gas collection system. And visibility & security of the parts were upgraded (see photo 4 & 5), to prevent loss of parts of the infrastructure in the future. This landfill leachate collection system can only be effectively managed if each part fulfils its function effectively as it was engineered to limit environment pollution in an environmentally sensitive area (the waste was deposited directly in a riverbed without a liner as it was legally allowed at the time, in addition; Cardiff Bay was created after its existence). It was confirmed by CC's representative that this work has been undertaken with the support of CC's own ecologist.

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

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

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

- 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.

Groundwater Monitoring Network

The CC confirmed that the procurement acquired for installing the new groundwater monitoring network and the final design is in process of being agreed with their landfill engineering consultant. Again, the procurement of the landfill leachate collection automation is completed, and the works is scheduled to start shortly.

Discussion

It was agreed with the CC that documenting all the works undertaken to date and submitting the final design during the permit variation process would future proof the site's infrastructure security to avoid any similar issues experienced historically.

Following the visit, the CC requested pre-app advice meeting with NRW for the actions agreed that are related to the permit, which is scheduled to take place in October.



Photo 4: Upgraded leachate collection infrastructure



Photo 5: Upgraded landfill gas collection infrastructure

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.