

Compliance Assessment Report CAR_NRW0038939

Permit being assessed: GP3830BG.

For: Chirk Landfill Site EPR/GP3830BG, held by FCC Waste Services (UK) Limited

At: Pen-y-Bont Works, Chirk, WREXHAM, Clwyd, LL14 5AR.

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

On 30/11/2021.

Parts of permit assessed: Q1, Q2 & Q3 monitoring returns

NRW Lead Officer: Paul Challender.

Report sent to: Colin Shaw, Leon Terrace, Site Manager, Compliance Advisor on 06/12/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor	Permit Condition 2.8.1, Schedule 3, Table S3.1
E2 - Emissions - Land and groundwater	Action only (X)	
E2 - Emissions - Land and groundwater	C4 No impact	Permit Condition 3.1.7, Schedule 3, Table S3.5.
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C4 No impact	Permit Condition 3.5.1(b), Schedule 3, Table S3.3.

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

Total number of non-compliances recorded	Total non-compliance score
3	4.2

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
B1	Complete desilting works at LC1D and notify NRW upon completion.	07/01/2022
E2	Provide an explanation, in writing to the regulating officer for the changes to sampling and analysis methods and/or providers which, has altered limit of detection for Naphthalene parameter.	31/12/2021
E2	Continue monitoring and review trends (ongoing requirement).	28/01/2022
G1	Ensure that visual oil & grease assessments are made for the emission points listed in Table S3.3 and/or ensure that visual	28/01/2022

Criteria	Action needed	Complete by
	oil & grease assessments are logged and reported in the next round of monitoring, including nil returns for this parameter.	

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

This report will cover the submitted monitoring returns for Qs 1, 2 & 3 for the permitted site and ongoing issues with leachate heads.

Leachate Heads

There are ongoing issues with leachate heads. Since, the identified leachate head levels in CAR_NRW0037604, exceedances of leachate heads have improved over time with regular issues only occurring at LC1D. FCC submitted a plan of action and timeframe to NRW and has supplied officers with weekly leachate head levels which show falling levels across the landfill infrastructure, with only LC1D remaining permanently in breach of the 43 metre (AoD) limit. Other wells have been in breach during this timeframe with exceedances of limits identified in Schedule 5 notifications earlier in the year, followed by weekly submissions as agreed by operator and regulator. Further to these notifications exceedances were also highlighted in the quarterly monitoring returns.

Among other works a new, alternate pump has been installed at LC1D which is the deepest leachate well at the site. Upon installation it has been identified that desilting of the well is required to achieve optimal functional depth for the pump to maintain a compliant leachate head. FCC have instructed third party contractors to complete these works. Issues with mobilisation of the contractors has occurred and FCC have kept NRW officers fully aware of the situation and provided regular updates.

Score: (B1) Engineering for prevention and control of emissions. Permit Condition 2.8.1, Schedule 3, Table S3.1 CCS3

Action: Complete desilting works at LC1D and notify NRW upon completion.

Leachate Quality

Reports for all quarters state that leachate quality was sampled and analysed in May 2021 with the next round of monitoring scheduled to take place in November 2021. Leachate quality is reported yearly as per permit conditions and are normally presented within the Annual Report. This data will be reviewed upon submission of the Annual Report.

Point Source Emissions to Air - A1 Flare Stack

The temperature parameter for the flare stack is only required to be reported on a weekly basis when the flare is operational. All other parameters are monitored and reported annually. The landfill has a reducing gas yield and as such currently only utilised one of the two onsite gas engines. The flare is only utilised infrequently. In addition, there is no emission limit value (elv) for this parameter. Submitted data for Qs 1, 2, & 3 is as expected and will be compared against the 2021 Annual Report once submitted.

Point Source Emissions to Water

Surface water discharge points WP4 & WP5 did not discharge and surface water to receiving waters during Qs 1, 2 or 3 and nil returns (Dry) were reported.

Surface water lagoons 1, 2 and 3 emission limits were reported upon. Quarterly reporting for Qs 1, 2 & 3 were submitted with an enhanced suite of parameters with a six monthly monitoring frequency reported upon in Q2 as required by Table S3.9.

There is a requirement in Table S3.3 to monitor the presence of oil and grease by a visual check on a six monthly basis. There is no evidence that this visual assessment has been made in the submitted data for Qs 1, 2 or 3 and as such this has generated a breach.

Score: (G1) Monitoring of Emissions and the Environment. Permit Condition 3.5.1(b), Schedule 3, Table S3.3. CCS 4

Action: Ensure that visual oil & grease assessments are made for the emission points listed in Table S3.3 and/or ensure that visual oil & grease assessments are logged and reported in the next round of monitoring, including nil returns for this parameter.

Groundwater

Groundwater monitoring data for the relevant parameters at a temporal interval to satisfy the monitoring frequency defined by Table S3.4 & S3.10 were submitted across the returns for Qs 1, 2 & 3.

Exceedances of identified emission limit values are discussed below:

Q1 - no reported exceedances of emission limits.

Q2 - reporting for this quarter presents the fuller monitoring suite of parameters required by Table S3.4 and S3.10. Breaches of elvs were reported which, have generated compliance scores and actions.

Elevated levels of Manganese (Mn) were detected at BH14 (elv 2.6 mg/l) & T13 (elv 2.1 mg/l). With Mn breaching the relevant elvs with levels of 4.27 mg/l and 4.31 mg/l respectively.

Elevated levels of Zinc (Zn) were detected at BH12 (elv 0.02 mg/l) and BH14 (elv 0.02 mg/l). With Zn breaching the relevant elv with levels of 0.13 mg/l and 0.022 mg/l respectively.

Naphthalene is a listed parameter for monitoring points BH4, BH7, BH8, BH9, BH10, BH12, BH13, BH14, T2, T4, T6, T12 & T13. The elv set for all monitoring points is 1 µg/l. Reported monitoring results are listed as <5 µg/l. This limit of detection is 4 µg/l higher than elv. In previously submitted historic data for the permitted site, Naphthalene data was submitted with a lower limit of detection which, was a level appropriate to evidence compliance with permitted emission limits.

Q3 - no reported exceedances of emission limits.

Action: (E2) Land and groundwater. Permit Condition 3.1.5, Schedule 3, Table S3.4. Provide an explanation, in writing to the regulating officer for the changes to sampling and analysis methods and/or providers which, has altered limit of detection for Naphthalene parameter.

Landfill Gas in External Monitoring Boreholes

Again methane (CH₄) gas was detected at T10 in all reported quarters. Breaches of the 1% v/v CH₄ limit were detected at T10 in Qs 1 & 2 with recorded breaches at 6.3% v/v, 9.5% v/v respectively. A detection of 0.5% v/v in Q3 was reported but this does not represent an elv breach. T11 is a monitoring point with constantly high CH₄ levels that are known not to be of landfill origin. T11 is in close proximity to T10 and is believed to give rise to interference of recorded gas levels at T10.

Score: (E2) Land and groundwater. Permit Condition 3.1.7, Schedule 3, Table S3.5. CCS 4

Action: Continue monitoring and review trends (ongoing requirement).

Landfill Gas in Waste Monitoring Points

In waste gas parameters were monitored and reported as being acted upon across Qs 1, 2 & 3. In each quarter, circa ~100 reading of oxygen levels exceeding 5% were recorded and multiple reading for percentage gas balance being greater than 20%. Elevated values can be attributed to actions taken during previous gas balancing actions. These exceedances result in air ingress assessments being performed.

Carbon monoxide (CO) has again been detected at elevated levels at W113 as reported previously to NRW in historic data submissions and bag sampling has taken place at this monitoring point. Levels reduced from 165 ppm in Q1 to below 100 ppm in Qs 2 & 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
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.