

Compliance Assessment Report CAR_NRW0037133

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 15/12/2020.

Parts of permit assessed: Routine Emissions Monitoring

NRW Lead Officer: Stuart Ross.

Report sent to: Colin Shaw, Site Manager on 15/12/2020.

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	3.1.2
B1 - Infrastructure - Engineering for prevention and control of emissions	C3 Minor	3.1.2
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3 Minor	4.3.1
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C3 Minor	3.5.1
E2 - Emissions - Land and groundwater	C4 No impact	3.1.2
E2 - Emissions - Land and groundwater	C4 No impact	3.1.2
C2 - General Management - Management system and operating procedures	C3 Minor	1.1.1

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
B1	Submit to NRW a final project of works (with associated timescales) for the improvement of the leachate collection infrastructure to achieve consistent leachate head compliance in all wells as soon as practicable.	31/01/2021
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Criteria	Action needed	Complete by
	timescales) for the improvement of the leachate collection infrastructure to achieve consistent leachate head compliance in all wells as soon as practicable.	
G4	Review procedures and resources allocated to meeting the notification requirements of the permit and take necessary action to ensure the permit requirements are consistently met. Provide NRW with a summary of your review and any associated improvement actions taken.	31/01/2021
G1	Review procedures for the identification, tracking and remediation of monitoring infrastructure defects / issues that prevent monitoring being completed in accordance with permit requirements. Provide NRW with a summary of your review and any associated improvement actions taken.	31/01/2021
E2	Continue to monitor, review trends.	Already completed
E2	Continue to monitor, review trends.	Already completed
C2	Ensure adequate contingency measures are in place to ensure permit compliance is maintained / non compliance minimised during disruption to normal operating arrangements. Provide NRW with a summary of your contingency measures for this site	31/01/2021

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

This Compliance Assessment Report follows a review of routine quarterly monitoring data for the period 1st January – 30th September 2020.

1. Leachate Heads

Quarter 1 (January – March)

Leachate heads were monitored monthly and compliant with the permitted leachate head limit (43 mAOD).

Quarter 2 (April – June)**Schedule 5 (Part A & B) notification as received 24/07/20**

Leachate heads were monitored at least monthly and exceeded the permitted limit in wells LM4B, LM5B, LM7B, LC4B, LC5B and LM6B during April, May and June. (LC1D was not monitored due to inaccessibility).

FCC reported that;

'Due to the Coronavirus pandemic and the lockdown coming into place in March, we were unable to have maintenance carried out to the pumping infrastructure with our usual pump contractor. The contractor furloughed their key staff members in March who usually look after the extraction system and monitoring of leachate levels at this site.

In April, we booked an outside contractor (Enital) to carry out leachate level monitoring on site. The data coming in from the new monitoring personnel showed leachate level increases. We took time to verify that the measured values were representative of the levels on site during this changeover. As the data came in, we became aware of the issues with elevated leachate levels throughout May and June and have been reviewing data and the effectiveness of the pumping system in the meantime.

We have since been to site and inspected the pumping system in detail, and have identified that:

The pumps on site do not appear to be the most efficient choice for the landfill. We have invited a different pump contractor to come in and assess the electrical side of the system and provide fresh input, with the look to move to a more modern systems integration. We have separately assessed the pneumatic pumping setup on site with our own leachate team and identified improvements that can be made to increase flow efficiency with the aim of adding more pneumatic pumps to the system. We are currently in the process of purchasing more appropriate equipment to update the system.

We intend to:

- Reduce the height of chamber PBLC001D so that it can be monitored. Temporarily, a safe access platform can be put into place.*
- Upgrade the compressor so that most, if not all, of the site can run on pneumatic pumps, rather than the current largely electrical set up.*
- Install level transducers in at least PBLC001D to monitor recharge rates*
- Install flow meters on the wells to identify volumes being generated from individual wells and better balance extraction rates.*
- Re-configure the leachate piping system on site so that it is more flow efficient and aid pneumatic pump installation.*

We estimate a new pumping system will take 2 to 3 months to install and setup. The current pumping infrastructure in place will be used to maintain leachate levels awaiting the installation and layout of a new system'.

Quarter 3 (July – Sept)

Schedule 5 (Part A) received 13/08/20

Leachate heads were monitored at least monthly and on 12/08/20 leachate head exceedances were reported in wells LM4B, LM5B, LM7B, LC4B, LC5B, LM6B and LC1D.

Leachate head exceedances were also recorded in July & September but were not submitted to NRW via Schedule 5 notifications.

Leachate heads were reducing in the majority of wells.

An action plan was submitted to NRW 21/08/20 to return leachate heads to compliance consisting of maintenance of the existing system pending an upgrade to leachate collection infrastructure to a pneumatic system (with electric pumps for deeper wells).

On 27/10/20 FCC reported that *'Currently the pumping system is down as we investigate a leachate line blockage somewhere in-between the bottom and top tanks. The leachate is not transferring as it should between these locations, this has potentially been the case since the beginning of October and we are only just seeing the effects of it now as tankers can no longer get a full load from site.'*

We are currently invasively looking into the issue with our newly appointed in-house leachate technician and our pump service contractor, however, this will likely take some time as pipework needs to be unearthed from under road crossings etc and tested for flow to locate the blockage. I understand that having the system down is not at all brilliant, but we are striving to resolve the issue as quickly as we can.

Leachate levels obtained by Enitail on the 7th of October show that the site was again non-compliant which has triggered this investigation into the problem. My idea was to have our new leachate technician carry out another round of dips towards the end of the month when we had looked into and resolved the issue as first we assumed it was silt from the bottom tanks blocking the transfer pump to the top tanks. The pump was recently removed, bench tested and found to be fine and only this week, the blockage in between the two sets of tanks was identified as being the cause and so the non-compliant levels still stand I'm afraid '

On 03/11/20 a revised Action plan was submitted to NRW that included;

- Installation of a new 90mm transfer pipe between the bottom and top tanks by 06/11/20. (Action Complete).
- Installation of pneumatic pumps to chambers LM6, LM7, LM4, LC4, LM5, LC5 - capex being drafted for this currently.
- Installation of 11mbar variable speed eco Compressor - currently under the quotation phase
- Weekly Internal Leachate Monitoring using anti-foam dipmeter every Friday sent to compliance advisor.

At the time of writing leachate head compliance has significantly improved. An email from FCC dated 08/12/20 containing dip data obtained 04/12/20 shows that all wells except LM6B and LC1D are compliant. LM6B is close to compliance unlike LC1D that appears to have shown little sign of improvement throughout the period.

Non Compliance (Leachate Heads and Notifications) & Actions

Non-compliance for monitoring breaches are applied per reporting period (per quarter), in accordance with NRW scoring guidance. The above leachate head exceedances are in breach of permit condition 3.1.2. (1x CCS 3 applied once per quarter).

Action 1 - Submit to NRW a final project of works (with associated timescales) for the improvement of the leachate collection infrastructure to achieve consistent leachate head compliance in all wells as soon as practicable. Submit your report by 31/01/21.

Please note that failure to achieve leachate head compliance may result in NRW serving an enforcement notice and taking enforcement action.

A Schedule 5 notification was submitted to NRW significantly late on 24/07/20 to report the breaches April – June. No schedule 5 notifications were received for leachate head breaches in July and September. Failure to notify and late notification is in breach of permit condition 4.3.1 and attracts a CCS score of 3.

Action 2 - Submit Schedule 5 (Part B) for August 2020 by 31/01/21.

Action 3 - Submit Schedule 5 (Part A & B) notifications for leachate heads exceedances recorded in July and Sept by 31/01/21.

Action 4 - Review procedures and resources allocated to meeting the notification requirements of the permit and take necessary action to ensure the permit requirements are consistently met. Provide NRW with a summary of your review and any associated improvement actions taken by 31/01/21.

Failure to monitor leachate heads in well LC1D during Quarter 1 is in breach of permit condition 3.5.1 and attracts a CCS score of 3.

Action 5- Review procedures for the identification, tracking and remediation of monitoring infrastructure defects / issues that prevent monitoring being completed in accordance with permit requirements. Provide NRW with a summary of your review and any associated improvement actions taken by 31/01/21.

Whilst we acknowledge the challenges COVID-19 has posed to operators, at no point did FCC contact NRW to advise of potential or actual permit non-compliance until notification was received 24/07/20.

Contingency measures should have been in place to ensure leachate collection infrastructure maintenance, monitoring and notification requirements were in place. The inability to monitor LC1D should have been addressed promptly. This is collectively a breach of permit condition 1.1.1 that attracts a CCS score of 3.

Action 6 - Ensure adequate contingency measures are in place to ensure permit compliance is maintained / non compliance minimised during disruption to normal operating arrangements. Provide NRW with a summary of your contingency measures for this site by 31/01/20.

You have been issued with a site warning for the above permit breaches.

2. Groundwater Quality Monitoring

The following compliance limit exceedances were reported.

Schedule 5 received 25/06/20

14/05/20. Monitoring Well T12, 1mg/l ammoniacal nitrogen (limit 0.5 mg/l). No other parameters exceeded permitted limits at this location.

The compliance limit exceedance is in breach of permit condition 3.1.2 and attract a CCS score of 4.

Action 7– Continue monitoring and review trends (ongoing requirement).

3. Surface Water Quality Monitoring

No discharges from the grass plots reported during this period. Samples collected from the River Dee upstream and downstream of the landfill do not indicate any impact from the landfill. Surface water lagoon samples collected - no issues.

4. Perimeter Gas Monitoring**Schedule 5 received 11/08/20**

10/08/20 – Monitoring well T10, 1.9% CH₄ (limit 1%).

The compliance limit exceedances are in breach of permit condition 3.1.2 and attract a CCS score of 4. Possible interference from local monitoring well that is known to contain methane unrelated to the landfill.

Action 8 – Continue monitoring and review trends (ongoing requirement).

5. Other Monitoring

Periodic monitoring of landfill gas quality report included in the Q3 return.

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.