

Compliance Assessment Report CAR_NRW0037220

Permit being assessed: BU0800IZ.

For: Llanddulas Landfill EPR/BU0800IZ, held by 3C Waste Limited

At: LLANDDULAS QUARRY ABERGELE ROAD , LLANDDULAS, ABERGELE, ABERGELE, LL22 8HP.

Type of assessment carried out: Audit, Reason: Routine.

On 03/12/2020 between 10:50 and 14:15.

Parts of permit assessed: Various

NRW Lead Officer: Rebecca Harwood, accompanied by Anthony Roberts.

Report sent to: Chris Bennion, Site Business Manager on 17/12/2020.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E1 - Emissions - Air	C3 Minor	3.3.1
B1 - Infrastructure - Engineering for prevention and control of emissions	Action only (X)	
C2 - General Management - Management system and operating procedures	C3 Minor	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
2	8

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
E1	improve gas capture - see actions in text below	31/01/2021
B1	see actions in text below	31/01/2021
C2	FCC to litter pick area and provide update to status of this flank and capping proposals	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 gas audit of Cell 3A at Llanddulas Landfill undertaken on 03 December 2020 by Tony Roberts and Rebecca Harwood. Both FCC and Infinis were present whilst the audit was undertaken.

Gas Compound

Gas readings at the Gas Utilisation Plant indicated 1mw of power was being generated, relative pressure -41mb, CH₄ 41.1%, CO₂ 31.7%, O₂ 0.2%, bulk flow 831m³/hr.

The pressure reading in the Cabin for Flare 2 (in operation) was not working correctly as it had a reading of 1279mb.

ACTION 1: Infinis to investigate & resolve.

Site survey and walk over – Cell 3A

Fugitive emissions around landfill gas and leachate infrastructure were assessed using a Gazomat portable methane detector.

The results indicate that whilst the gas extraction system is operated to an overall high standard and that external complaints are greatly reduced there are still some issues to address. The ambient gas levels on parts of the site and some emissions indicate that there are fugitive and point source emissions which require improved control.

There were numerous areas across the flanks of the cell where odour was noticeable, and gas was being emitted with ambient concentrations being detected over 100ppm, indicating the requirement for improved gas capture. ***This has been scored a CCS Category 3 breach of Permit - Condition 3.3.1***

The leachate wells, and those gas wells with pumps installed were generally working effectively, with good gas concentrations and flow. It was apparent that some work had been undertaken on site prior to NRWs visit as there was evidence of recent bentonite sealant having been laid.

A number of leachate and gas wells had methane concentrations of over 100ppm emitting from the base / through the seal of the wells, and a few that had concentrations over 1000ppm. Specific actions have been detailed below following observations from the day.

The wells to the north western side of the cell, closest to the engines were mainly closed with no or little assumed flow. The relative pressure recorded at these wells was similar to the mains pressure recorded at the compound. When the valves were opened, there was no discernible difference suggesting the wells may be blocked or that there is water in the

system.

ACTION 2: Infinis to review and check integrity of these wells – update required by 31 January 2021.

KOP9 – air leak in system. **ACTION 3: Infinis to check / repair.**

D281 – well tilted and bentonite has failed. 4,900ppm of methane was initially detected at the base of well, rising to 11,200ppm and peaking at 20,000 ppm. Suspect fractured well due to 45° angle. **ACTION 4: New well to be drilled if cannot be remediated – update required by 31 January 2021.**

D279 – inaccessible - well too high and can't be monitored, no apparent flow detected. **ACTION 5: Well to be reduced in height.** The Operator has since confirmed this work was been completed on 04 December 2020.

D287 – well surrounded by water, could not be accessed (see photo 1). **ACTION 6: Pump out water, raise well and ensure access.** The Operator has since confirmed this work was completed on 04 December 2020.

LC2AR2 – 30ppm in air. Pneumatic pump operating at around 60ls per minute. Opened valve, some flow. **ACTION 7: Check seal.**

D305 - air pump running every 15 seconds. Bentonite seal recently added, 400ppm still being emitted at base. Good flow. Previously identified issue at base of well. **ACTION 8: Check seal.**

D306 – good flow, well tilted at 30°, 275ppm at well seal, 2,900ppm at base. Previously identified issue at base of well. **ACTION 9: Resealing required.**

D307 – no apparent flow, gas leaking at base of well 250ppm detected. **ACTION 10: Resealing required.**

D318 – good flow, kinked pipe join (see photo 2). **ACTION 11: New joint required.**

D298 – base of well 7,100ppm. No apparent flow, pump stuck. JSR on site - well being re-piped, pump being removed. The operator has confirmed that the pump was unable to be removed and that the well is distorted at around 10meters. **ACTION 12: Check leachate level, if there is evidence of perched leachate and no or little gas flowing then this well will need to be redrilled. FCC to confirm action to be taken by 31 January 2021.**

ACTION 13: All gas wells to be dipped and levels reviewed against drill logs to ensure leachate is not blocking the gas pathway – update required by 31 January 2021.

Litter

There was a large amount of litter accumulating on the southern flank of the cell (see photos 3 and 4). This needs to be removed and the flank either capped or cover applied to avoid further litter problems. ***As a result of inadequate cover soils being applied this***

has been scored a CCS Category 3 breach of Permit – Condition 1.1.

ACTION 14: FCC to litter pick this area as soon as possible to avoid windblown litter causing an offsite amenity issue.

ACTION 15: Review existing procedures for managing cover and the control of litter and submit procedure to NRW by 31st January 2021.

ACTION 16: FCC to provide update to status of this flank and capping proposals by 31 January 2021.

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.