

Compliance Assessment Report CAR_NRW0037931

Permit being assessed: BU7766IC.

For: Bryn Posteg Landfill , held by Sundorne Products (Llanidloes) Ltd

At: Bryn Posteg Landfill Site Tylwch Road , Llanidloes, Powys, SY18 6JJ.

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

On 31/12/2020.

Parts of permit assessed: Q4 monitoring return

NRW Lead Officer: Rebecca Harwood.

Report sent to: David Williams / Deborah Hall, Technical Manager / EH&S Compliance Manager on 14/05/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E2 - Emissions - Land and groundwater	C4 No impact	Conditions 2.8.1 & 3.7.1(a)
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	Action only (X)	
B1 - Infrastructure - Engineering for prevention and control of emissions	C4 No impact	Condition 3.7.5
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C4 No impact	Condition 3.7.1(b)
E4 - Emissions - Sewer	C4 No impact	Condition 3.1.2 & 3.7.1(b)
E3 - Emissions - Surface water	C3 Minor	Condition 3.1.2 & 3.7.1(b)
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	Action only (X)	
E2 - Emissions - Land and groundwater	Ongoing (O)	Condition 3.1.2
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C4 No impact	Conditions 3.7.1 & 4.2.3
E2 - Emissions - Land and groundwater	Action only (X)	
B1 - Infrastructure - Engineering for prevention and control of emissions	Action only (X)	
E2 - Emissions - Land and groundwater	C3 Minor	Conditions 3.1.7 & 3.7.1

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

Total number of non-compliances recorded	Total non-compliance score
7	8.5

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
E2	See Action 1 below	30/06/2021
G1	See Actions 2 & 3 below	31/05/2021
B1	See Action 4 below	31/05/2021
G1	See Action 5 below	30/06/2021
E4	See Action 6 below	Already completed
E3	See Action 7 below	30/06/2021
G4	See Action 8 & 9 below	30/06/2021
E2	See Action 10 below	30/06/2021
G1	See Action 11 below	31/05/2021
E2	See Action 12 below	30/06/2021
B1	See Actions 13 & 15 below	31/05/2021
E2	See Action 14 below	31/05/2021

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

Introduction

We have reviewed the report '*Sundorne products (Llanidloes) Limited - Bryn Posteg landfill site, Permit: BU7766IC, 4th quarterly monitoring report 2020.*'

This report was submitted to NRW on 28/01/21. Permit Condition 4.2.3 requires that quarterly returns are submitted to NRW within 28 days of the end of the reporting period.

Leachate levels - Table S3.1

Monthly leachate levels for the monitoring points have been provided.

Condition 2.8.1 requires leachate levels to be less than 1m above the sump base. Leachate levels provided show compliance at all monitoring points throughout the period apart from LCP7 which marginally exceeded this level in November only, with a level of 1.02 metres. **NRW considers the Operator to have breached Permit Condition 2.8.1 (consolidated with Condition 3.7.1 (a)) with no potential risk to the water environment as the breach is marginal (E2 - CCS4).**

ACTION 1: The Operator shall use suitable resources (financial and technical) to keep leachate levels at this low level and reduce leachate heads in Phase 7 to below the 1m above sump base compliance limit listed in the permit.

NRW note that the exact leachate monitoring points being monitored and nomenclature still require addressing fully as requested in previous CARs (Actions 8 & 9 – CAR_NRW0036811 and Action 3 – CAR_NRW0037617). This could have an impact on the accuracy of reported monitoring data and could attract further permit non-compliances if not addressed by the Operator in a timely manner.

ACTION 2: Complete Outstanding actions 8 & 9 from CAR_NRW0036811 / Action 3 from CAR_NRW0037617.

Leachate quality - Table S3.9

The Operator has provided monthly raw leachate quality data for the points specified in Table S3.9 of the permit.

Page 22 of the Leachate Management Plan states monthly monitoring will include Ammoniacal Nitrogen and Chloride. The report submitted only provides data for pH.

ACTION 3: Confirm whether the additional monitoring was completed and forward the results to NRW. (see also CAR_NRW0036858)

It is noted that LCP7 was not sampled due to access issues, however, dips were able to be taken. **NRW considers this to be a breach of Permit Condition 3.7.5 (B1 – CCS4).**

ACTION 4: Advise NRW what action is being taken to address the health and safety issues to allow the well to be sampled in the future.

Treated leachate quality - Table S3.4

The Operator has reported monthly leachate quality data following treatment at the effluent treatment plant as required by Table S3.4. Temperature measurements were not provided. **NRW considers this to be a breach of Permit Condition 3.7.1 (b) (G1 – CCS4).**

ACTION 5: Ensure temperature measurements are taken on subsequent samples.

The soluble methane limit of 0.14mg/l was exceeded in November with a concentration of

0.51mg/l. NRW acknowledge your comments regarding the laboratory error noted in the Part B Schedule 5 notification. **NRW considers this to be a breach of Permit Condition 3.1.2 (consolidated with Condition 3.7.1 (b)) (E4 – CCS4).**

ACTION 6: Investigate reason for elevated reading (completed)

All other reported results submitted are in compliance with the permitted limits.

Surface water - Table S3.3

Condition 3.1.2 states that the limits in Table S3.3 shall not be exceeded. Monthly monitoring data has been provided and shows that location P1 exceeded the permitted limit of 50mg/l for Suspended Solids in December with a recorded concentration of 246mg/l. P2 exceeded the permitted limit of 0.25mg/l of Ammoniacal Nitrogen in November with a recorded concentration of 0.4mg/l. In addition, pH should be between 6-9pH units, P1 had a recorded concentration of 5.7pH units in October, this was not identified in the Schedule 5 notification. **NRW considers the Operator to have breached Permit Condition 3.1.2 (consolidated with Condition 3.7.1(b)) with the potential for minor impact on surface waters (E3 – CCS3).**

ACTION 7: The Operator should use all suitable resources (financial and technical) to ensure compliance with the limits specified in Table S3.3. Documents have been submitted to NRW in response to Improvement Conditions 10 & 11 of the recent permit variation. Operator to progress improvements and provide NRW with a progress report on their implementation. This is an ongoing action from CAR_NRW0037617 (Action 6).

ACTION 8: Provide your procedure for reviewing monitoring data to ensure all breaches are identified to NRW.

ACTION 9: Investigate the low level of pH in monitoring point P1 and report back to NRW.

Groundwater - Tables S3.5 and S3.10

The Operator has provided groundwater monitoring data. It was noted that W11 was not monitored as it was dry.

Condition 3.1.5 states that the trigger levels for emission to groundwater for the parameters and monitoring points set out in Table S3.5 shall not be exceeded. The recorded Chloride concentration of 109.30mg/l for the period in G1/W1 exceeded the limit of 69mg/l. The Operator has made an informal submission to NRW proposing to increase the compliance limit for Chloride in G1/W1 due to road salt. NRW is satisfied that the compliance limit could be increased to 500mg/l with review on a regular basis. **NRW considers this to be a breach of Permit Condition 3.1.2 (consolidated with Conditions, 3.1.5 and 3.7.1(c)) (E2 – O).**

ACTION 10: The Operator must formalise this by applying for a permit variation and continue to review monitoring data. This is an ongoing action from CAR_NRW0037617

(Action 7)

Landfill gas in external monitoring boreholes - Table S3.6

The Operator has submitted monitoring data for landfill gas in external boreholes situated around the perimeter of the waste mass.

No data for monitoring points G6, G33 or G35A has been provided. **NRW considers this to be a breach of Permit Condition 3.7.1(d) (consolidated with Condition 4.2.3) (G1–CCS4).**

ACTION 11: Provide update on plans for replacement boreholes. This is an ongoing action from CAR_NRW0037617 (Action 9).

In total, there were 32 occurrences when the Methane result exceeded the compliance limit of 1%v/v and 58 occurrences when the Carbon Dioxide result exceeded the compliance limit of 1.5%v/v.

Methane concentrations as high as 72.3% and Carbon Dioxide concentrations as high as 21.5% (both G22) were recorded.

Monitoring points G19 – G23 and G38 are located around Phase 1 which is relatively shallow and unlined. These appear to show consistently elevated concentrations of Methane and Carbon Dioxide in excess of permitted limits. Relative pressures have been supplied and are negative or relatively low, with the highest pressure recorded in October at G24 with a recording of 0.88mb and a reading of -71.59 in G23 recorded in December.

Other monitoring locations around the site were found to breach permit limits for Methane and/or Carbon Dioxide at various locations along the north site boundary, i.e. G25, G26, G29, G31, G35, G36 (near weighbridge building), and G37. Relative pressures have now been supplied and appear to be negative or relatively low. A reading of -33.88mb was recorded at G37 and -12.12mb at G25.

To the east and south east of the site monitoring points G1, G2, G3, G7, G8 and G10 all had elevated concentrations of Carbon Dioxide, a reading of -45.52mb was recorded at G7

ACTION 12: Investigate the reason for the relative pressure of -71.59mb in G23 and -45.52mb in G7 recorded on 11th December 2020, and -33.88mb recorded in G37 on 8th October 2020.

Monitoring points G16 – G18 are located further from the waste mass and on the far side of the surface water lagoons and appear to be in compliance with permitted limits. Based on the source pathway receptor approach NRW is satisfied that the likelihood of risks being realised from the noted landfill gas migration from the Phase 1 area is low. This is subject to constant review of monitoring data and the Operator must continue to follow their gas management plan and ensure efficient collection and utilisation of landfill gas.

Monitoring points G12, G14 and G15 contained elevated concentrations of Methane and/or Carbon Dioxide exceeding permitted limits along the southern boundary of the site adjacent

to Phase 9B. Relative pressures at this location were negative. The balance gas within gas extraction point GW90 was 20% on 10th October, but remained below 20% for the rest of the quarter.

ACTION 13: Confirm whether Action 10 from CAR_NRW0037617 has been completed as the results suggests there is still some air ingress and requires investigation.

NRW considers Permit Condition 3.1.7 (consolidated with Condition 3.7.1(d)) to be breached with the potential for a minor environmental impact based on the source pathway receptor approach (E1 - CCS3).

ACTION 14: The Part B submitted on the 19th February 2021 states that a separate report will be sent through detailing investigations into each failing gas well. Please provide an update into the investigations and when this report will be received.

Landfill gas - other monitoring requirements Table S3.8

The operator has provided monthly in waste landfill gas collection system data. However, no specific comments or actions have been provided where Oxygen levels exceed 5% and balance gas exceeds 20%. The data shows there have been 8 instances where Oxygen levels have risen above 5% in the gas wells and 32 instances where the gas balance has been recorded above 20%. This is a significant decrease and improvement on last quarter. The Operator has commented that this is as a result of ongoing improvement works with the gas infrastructure and an increase of monitoring around the gas field.

There have been 2 instances where Carbon Monoxide (CO) concentrations have been above 100ppm – BPIW0308 (227ppm) and BPIW0304 (141ppm) .

The permit requires that investigations shall be undertaken by the Operator where the concentration of CO exceeds 100ppm.

ACTION 15: Action 12 from CAR_NRW0037617 is outstanding – please provide an update to the seal repairs made to the in-waste gas wells.

The Operator has provided weekly data for gas composition and vacuum pressure for the inlet to the gas compound.

Ambient air - Table S3.11

The Operator has provided data for particulate matter for the quarter as required by Condition 3.7.1(e). This shows the limit of 200mg/m²/day required by Condition 3.1.8 and Table S3.11 of the permit was complied with.

Notifications

The following table summarises the notifications received from the Operator for the period October – December 2020 as required by Condition 4.3 of the permit.

Date NRW notified	Part A	Part B - operator comments
28.01.21	10.11.20 Suspended solids and ammoniacal nitrogen	Part B received 19.02.21 - This breach is being addressed with the new surface water management plan. As well as this, the construction and commission of a new chemical dosing system is being implemented. See Actions 7, 8 & 9 above.
28.01.21	10.11.20 Dissolved methane	Part B received 19.02.21 - It is thought that this failure is a laboratory error. Due to the amount of oxygen, we circulate in the treatment lagoon, it is not feasible for the treated effluent to have such a high result. Furthermore, a methane level of this elevation would have likely caused an explosion in the sewer line. As such, it is unlikely that this result is accurate. See Action 6 above (completed).
28.01.21	15.12.20 GW1 Chloride	Part B received 19.02.21 - GW1 is a legacy borehole that consistently fails on Chloride levels, since 2010. A report detailing likely source has been submitted to NRW who have agreed that this chloride compliance limit can be modified via a permit variation application. This is due to be submitted March 2021. See Action 10 above.
28.01.21	Q4 - Methane and carbon dioxide exceedances in perimeter boreholes	Part B received 19.02.21 - A separate report will be sent through detailing our investigations into each failing gas well. See Action 14 above.

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.