

Compliance Assessment Report CAR_NRW0036858

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 31/03/2020.

Parts of permit assessed: see report

NRW Lead Officer: Lara Cubley.

Report sent to: David Williams / Deborah Hall, Technical Manager / EH&S Compliance Manager on 12/08/2020.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C3 Minor	4.2.3
E2 - Emissions - Land and groundwater	C2 Significant	3.1.7, 2.7.1 & 3.5.1
E4 - Emissions - Sewer	C3 Minor	3.1.2
E3 - Emissions - Surface water	C3 Minor	3.1.2

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

Total number of non-compliances recorded	Total non-compliance score
4	43

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
G1	see report Action 1	28/10/2020
E2	See report Actions 3, 4, and 7 with varying due dates according to action.	12/08/2020
E4	See report Action 6	03/09/2020
E3	See report Action 8	30/09/2020

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

Introduction

We have reviewed report 'Sundorne Products Limited – Bryn Posteg LANDFILL SITE 1st Quarterly Monitoring Report 2020 submitted on the 17/04/20.'

As required by Permit Condition 4.2.3 this report was submitted within 28 days of the end of the reporting period.

Landfill Gas – Other monitoring requirements Table S3.8

The Operator has submitted in-waste gas collection monitoring data from the gas collection system. The data expresses the parameters required by the Permit. Encouragingly, the Operator has also commented on efforts taken to address issues such as oxygen levels exceeding 5%.

It is noted that no monitoring points reported exceeded 100ppm Carbon Monoxide (CO) compared to 24 monitoring points from the last quarter. This could be related to filter use during gas monitoring. The Operator is advised to ensure filters are used and changed as required by management and monitoring plans.

Advice & Guidance: The Operator must follow their Gas Management Plan and ensure investigations of air ingress, bag sampling, and associated actions where <5% oxygen and ratios of CH₄:CO₂ are <1. Records of such actions should be maintained.

Weekly data for input to LFG utilisation compound has now been provided from January 2020. However, this does not contain flow rate data as required by Condition 4.2.3 of the Permit. As times are given for the weekly data it would appear that the data provided is a spot reading. The Permit requires weekly summary data of this continuous monitoring such as max/min and average and total quantity. **NRW is of the opinion that this is a breach of Condition 4.2.3 of the Permit (G1 Monitoring of emissions and the environment – CCS3).**

ACTION 1: Please provide weekly summary data to include gas flow rate data in the next quarterly monitoring report 28/10/20.

The inlet vacuum to the gas compound appeared positive on the 02/02/20 & 09/02/20 suggesting no active gas control. **ACTION 2: Please provide NRW with an explanation in writing by 03/09/20.**

Landfill Gas in external monitoring boreholes Table S3.6

The Operator has submitted monitoring data for landfill gas in external boreholes at between 35 and 37 locations around the perimeter of the waste mass. Data on atmospheric pressure, temperature or meteorological data has been included from January 2020 as required by the Permit.

During the period Jan – Mar 2020 a total of 11 locations breached both the limits for Methane and Carbon Dioxide set under Condition 3.1.7 of the Permit and a further 8 locations breached only the Carbon Dioxide limits set by the Permit. **NRW considers Condition 3.1.7 of the Permit to be breached (E2 – CCS2 Jan – Mar 2020).**

This monitoring data indicates that the landfill gas is migrating externally to the site posing a significant environmental risk. There are receptors present at site offices and some residential properties within 500m of the site. There are potential pathways through gravel lenses, cracks/fissures in geology, and through

services.

The Operator provided the report *Gas Extraction System Audit (Document Reference: 3913-CAU-XX-XX-RP-V-0302.A0-C1 November 2019)* on 12/02/20. However, NRW still requires confirmation on completion of actions, more specifically in providing further coverage of gas wells and addressing leachate levels in extraction infrastructure. This will offer increased control over the gas field leading to less potential for gas migration. **ACTION 3: The Operator should pursue the recommended actions within the audit report and provide an update in writing on progress against actions by 03/09/20. CQA plans to be provided as required by the Permit**

Leachate Table S3.1/S3.4/S3.9

Monthly leachate levels for the monitoring points have been provided. As documented in the previous quarterly monitoring returns review (CAR_NRW0036837), the way leachate levels have been reported has changed this quarter. This is believed to be due to the installation of new wells in June 2019. The Operator is in the process of updating procedures (Leachate Management Plan) and has put a new labelling process/unique identification system in place to address this (see actions 8 & 9 CAR_NRW0036811).

Condition 2.7.1 requires leachate levels to be less than 1m above sump base. Leachate levels exceed this at all monitoring points for this period of January – March 2020. Leachate levels as high as 15.24m above base of sump have been recorded in RMLP9C. RMLP9C also sees leachate levels in excess of 10m. Other monitoring points generally remain below 4m apart from LCP1 which peaks at 6.94m. **NRW considers the Operator to have breached Condition 2.7.1 with the potential for a significant risk to the water environment. An Enforcement Notice (EN) was served (05/12/20) on the Operator with the aim of returning them into compliance with Permitted levels. (E2 – CCS2 Jan – Mar 2020 – score is currently suspended as a result of EN and will be reviewed in due course).**

ACTION 4: The Operator shall use suitable resources (Financial and technical) to reduce leachate heads in all landfill cells to below the 1m above sump base compliance limit listed in the Permit immediately.

The Operator has reported monthly raw leachate quality data from the points specified in Table S3.9 of the Permit. The data only appears to report pH (although the parameter is not stated in leachate quality table in the report). For the period Jan – March 2020 monthly NH₄-N and chloride data for raw leachate is missing as required by the Leachate Management Plan. **Please ensure that analysis for these determinands is conducted and reported in quarterly reports going forward to prevent attracting future permit non-compliance.**

The Operator has reported monthly leachate quality data following treatment at the effluent treatment plant required by table S3.4. The quality of the data requires improvement as units are not provided and Ammoniacal Nitrogen concentrations, if in mg/l, appear to be an order of magnitude lower than the previous quarter and should be investigated. This quarterly report required some general improvements by ensuring units and determinands are provided to allow for interpretation.

ACTION 5: The Operator must add units to data and check/correct investigate Ammoniacal Nitrogen concentrations for the period Jan – Mar 2020 and report findings in writing by 03/09/20. Future reports shall contain units and it is advisable to employ appropriate QA procedures.

Of the 30/01/20 the treated effluent breached the pH limit of 6 – 10 with a reading of 2.5. **NRW is of the opinion this is a breach of Condition 3.1.2 (E4 – CCS3) on 30/01/20.** The Operator reports this as isolated event, however, in the last 6 monthly spot samples 2 have failed for pH. It can be extrapolated that pH has the potential to be out of compliance one third of the time. The Part B investigation does not provide enough assurance that a full investigation has been adequately completed in order to prevent recurrence.

ACTION 6: The Operator must provide a full part B investigation into this incident as required by Condition 4.3 of the Permit. The investigation shall include an assessment of compliance with the Leachate Management Plan, including but not limited to provision of pH monitoring data. Controls such as the adequacy of the pH monitoring equipment, maintenance, calibrations, review and management of the discharge to comply with pH6 – 10 should be reviewed. Please provide this

investigation to NRW in writing by 03/09/20.

CAR_NRW0036811 Action 6 regarding maintenance of pH probes still stands.

Groundwater Table S3.5/S3.10

The Operator has provided monitoring data as required by the permit for groundwater monitoring for monthly and quarterly parameters. However, weekly dips of groundwater level appear to be missing for the final week.

Condition 3.1.5 states that the trigger levels for emission to groundwater for the parameters and monitoring points set out in Table 3.5 shall not be exceeded. The Chloride concentration in W1 and W3 exceeded the permitted limit of 69mg/l on the 15/03/20 with a respective value of 488mg/l and 93mg/l.

NRW considers the Operator to have breached Condition 3.5.1 (E2 – CCS3 consolidated with leachate heads Condition 2.7.1) with the potential for a minor risk to the water environment.

ACTION 7: The Operator believes W1 Chloride concentrations to be caused by road salt. Appropriate measures to prevent contamination of the groundwater borehole should be implemented as far as reasonably practicable and a variation application should be submitted with enough evidence to demonstrate this is the case, suggesting updated trigger levels for this location by 31/01/21.

Surface Water Table S3.3

Condition 3.1.2 states that the limits given in Table S3.3 shall not be exceeded. Monthly monitoring data has been submitted and showed that location P2 exceeded the permitted limit for suspended solids of 50mg/l in March with a concentration of 122mg/l.

NRW considers the Operator to have breached Condition 3.1.2 (E3 – CCS3) with a potential minor impact on surface waters.

As per previous CARs SW3 discharge point has yet to be constructed together with reed bed. The Operator is currently working on changes to the surface water management system to prevent pollution of the watercourses. From discussions with the Operator such plans are imminent and will require a permit variation to amend current plans.

ACTION 8: The Operator should complete and submit surface water management design plans without delay (not later than 30/09/20) to minimise the period of potential pollution with suspended solids.

Ambient Air Table S3.11

Monitoring data for particulate matter required by Condition 3.7.1(e) for the quarter was submitted. This confirms that the limit of 200mg/m³/day required by Condition 3.1.8 table S3.11 of the Permit was complied with. The Operator should ensure monitoring reference points accord with and can be easily linked to those required by the permit.

Notifications Condition 4.3

The following table summarises the notifications received from the Operator for the period January – March

2020, required by Condition 4.3 of the Permit.

Date	Brief description	Actions/Recommendations
01/01/20 – 31/01/20	Perimeter Gas Boreholes exceeding Methane & CO2 trigger level	The operator reports reduction of leachate levels and improved landfill gas extraction are expected. See Action 3.
January 2020	Leachate levels exceeding 1m above sump base trigger	Part B states, ' <i>pumps serviced and extraction increased</i> '. <i>Increased extraction rates have reduced leachate levels in RMLP9B West, RLP9C and RMLP9D.</i> See Action 4.
30/01/20	Sewer Discharge exceeding pH limits	The date in notification received from the Operator is reported as 30/01/10 and 31/10/19 but believed to be 30/01/20 from data submitted. ACTION: Operator to correct and resubmit for public register. Operate reports this as isolated event, however, in the last 6 monthly spot samples 2 have failed for pH. It can be extrapolated that pH has the potential to be out of compliance one third of the time. The Part B does not provide enough assurance that a full investigation has been adequately completed in order to prevent recurrence. See Action 6.
21/01/20	Biomass boiler shut down	Part B indicates up and running on 30/01/20. Blockage of moving grate was the reported cause. All wood will be passed through the shredder twice before use as fuel and sorted more stringently to reduce amount of nails/screws that enter shredder.
15/03/20	Groundwater W1 & W3 exceeding Chloride trigger	W1 recorded concentration of 488mg/l and W3 concentration of 93mg/l versus 69mg/l. Part B suggests W3 to be an erroneous reading with W1 being consistently elevated are reportedly linked to salt. See Action 7.
15/03/20	Surface Water P2 exceeding Total Suspended Solids trigger	Suspended solids concentration of 122mg/l versus the 50mg/l trigger. Part B from the Operator suggests these breaches were preceded by heavy rainfall and that the surface water lagoons and treatment systems are currently under review. See Action 8.

Advice & Guidance: Please ensure that for ongoing continued non-compliances, i.e. leachate levels and gas migration, Part A/B notifications are submitted to cover the complete quarter for the monitoring period to which they relate. These should contain an update on the measures being taken or planned to stop, rectify or limit the emission/pollution and prevent recurrence.

For more discrete breaches or incidents, please provide Notifications as per permit timescales.

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.