

## Compliance Assessment Report

**Report ID:**  
**CAR\_NRW0033382**

**This form will report compliance with your permit as determined by an NRW officer**

|                              |                                    |             |            |     |     |
|------------------------------|------------------------------------|-------------|------------|-----|-----|
| Site                         | Bryn Posteg Landfill               | Permit Ref  | BU77661C   |     |     |
| Operator/Permit holder       | Sundorne Products (Ilanidloes) Ltd |             |            |     |     |
| Regime                       | Installations                      |             |            |     |     |
| Date of assessment           | 22/05/2018                         | Time in     | N/A        | Out | N/A |
| Assessment type              | Report/Data Review                 |             |            |     |     |
| Parts of the permit assessed | 4.2.3                              |             |            |     |     |
| Lead officer's name          | McClymont, James                   |             |            |     |     |
| Accompanied by               |                                    |             |            |     |     |
| Recipient's name/position    | David Williams/ Technical Manager  | Date issued | 22/05/2018 |     |     |

### Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

| Permit conditions and compliance summary   | CCS Category | Condition(s) breached |
|--|--------------|-----------------------|
| C2 - General Management - Management system and operating procedures   | C2           | 1.1.1                 |
| E2 - Emissions - Land and groundwater  | C3           | 3.1.5                 |
|  | C2           | 3.1.7                 |
| E3 - Emissions - Surface water   | C2           | 3.1.2 (Table S3.3)    |
| E4 - Emissions - Sewer   | C3           | 3.1.2 (Table S3.4)    |
| G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment               | C3           | 3.7.1, 3.7.4          |
| G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales | C3           | 4.3.1, 4.3.2          |

**KEY:** See Section 5 for breach categories, suspended scores will be indicated as such.  
**A** = Assessed or assessed in part (no evidence of non-compliance), **X** = Action only,  
**O** = Ongoing non-compliance, not scored.

|                                    |          |   |            |
|------------------------------------|----------|---|------------|
| <b>Number of breaches recorded</b> | <b>7</b> | <b>Total compliance score</b><br>(see section 5 for scoring scheme) | <b>109</b> |
|------------------------------------|----------|---|------------|

**If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response**

## Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

### Quarterly Monitoring Review (January - March 2018)

We have reviewed the above report submitted with regard to Permit Condition 4.2.3.

#### **Reporting**

Condition 4.2.3 states that within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

The report was received on 18/05/2018, an extension date agreed in writing by NRW.

The majority of the parameters required by Table S4.1 are provided in the report, however not all of the required data for the Gas Collection System has been provided. The Gas Collection System, as defined in Section 4.3 of LFTGN03 (the monitoring standard specified in Table S3.8), includes:

- Collection wells
- Collection layers
- Collection pipework
- Extraction plant
- Condensate management system

**Action 1:** Monthly in-waste gas collection well data should be included in Quarterly Reviews going forward. For each extraction well, this should include:

- Methane (%)
- Carbon dioxide (%)
- Oxygen (%)
- Carbon monoxide (ppm)
- Hydrogen sulphide (ppm)
- Atmospheric pressure (mb)
- Differential pressure (mb)
- Meteorological data (summary for the day(s) of monitoring)

## **Notifications**

Condition 4.3.1 (b) states that in the event of a breach of any permit condition the operator must immediately - (i) inform NRW, and (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time.

Condition 4.3.2 states that any information provided under condition 4.3.1 (b) (i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

Schedule 5 notifications were received by NRW for breaches identified during Q1 2018, in the same e-mail as the Q1 report, on 18/05/2018. Any breach of a permit limit should be notified to NRW immediately.

**This breach has been scored a CCS Category 3 breach of permit.**

**Action 2:** Ensure that procedures are in place to ensure that breaches of permit limits are notified to NRW immediately and provide a copy of the relevant procedure(s) to NRW by 08/06/2018.

## **Lateral migration of landfill gas**

Condition 3.1.7 states that the limits for landfill gas arising from the installation set out in Schedule 3, tables S3.6 and S3.7 shall not be exceeded.

Methane permit limits were exceeded on at least one occasion at all 36 monitoring locations, this is an increase compared to Q4 of 2017, when methane permit limits were exceeded at 18 monitoring locations. Carbon dioxide permit limits were exceeded on at least one occasion at 27 monitoring locations, this is an increase compared to Q4 of 2017, when carbon dioxide permit limits were exceeded in 25 monitoring locations. Many of the monitoring boreholes show ratios of landfill gas consistent with potential migration of landfill gas outside of the engineered containment areas and off site.

The maximum concentration of methane in perimeter boreholes of 93.4 % suggests methane enrichment and a large amount of gas being lost or uncaptured and laterally migrating.

**These breaches have been scored a CCS Category 2 breach of permit due to the long standing and serious nature of these emissions limits breaches.**

**Action 3:** Investigations into the control and migration of landfill gas should be instigated and measures implemented to prevent it as soon as possible.

It is noted that perimeter landfill gas concentrations have been compared to a trigger limit as well as the permit compliance limit, following our request in CAR\_NRW0033055.

## **Groundwater**

Condition 3.1.5 states that the trigger levels for emissions into groundwater for the parameters and monitoring points set out in Schedule 3 table S3.5 shall not be exceeded.

Levels of chloride in W1 exceeded the permit limit (69 mg/l) throughout the monitoring period with a maximum of 482 mg/l.

Levels of ammoniacal nitrogen in W1 exceeded the permit limit (2 mg/l) in January at 2.68 mg/l.

**These breaches have been scored a CCS Category 3 breach of permit.**

Exceedances of the current permit limit will continue to be scored until such a time that a variation

application to revise / remove the limit has been received, and NRW have reviewed and ultimately approved the variation. It is considered that further evidence will be required to support claims that this borehole is being affected by a localised source of salt.

### **Leachate**

Condition 2.7.1 states that the limits for the level of leachate listed in Schedule 3 table S3.1 shall not be exceeded.

Reported leachate levels remained compliant with the 1 m above sump base limit.

Condition 3.7.4 requires that permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 3 table S3.1.

Table S3.1 requires that leachate levels are monitored in sumps LCP1, LCP2, LCP3, LCP6, LCP7, LCP8, RMLP9A, RMLP9B, RMLP9C and RMLP9D on a monthly basis. Leachate levels have not been reported for locations LCP6, RMLP9A, RMLP9B, RMLP9C or RMLP9D. Leachate levels were also not reported for LCP2, LCP3 and LCP8 in March.

Condition 3.7.1 states that the Operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring of leachate specified in Tables S3.1 and S3.9. LCP3, RMLP9C and RMLP9D were not sampled during this review period.

**These breaches have been scored a CCS Category 3 breach of permit.**

**Action 4:** A permanent means of access to enable monitoring shall be provided at all leachate sumps immediately.

**Action 5:** Leachate levels should be recorded in all wells listed in Table S3.1 and provided to NRW in future monitoring reviews.

**Action 6:** Paragraph 4.1.4 outlines that investigations of the site infrastructure during April and May 2018 have identified issues with leachate dipping. A follow up investigation will confirm which leachate wells are suitably deep enough, and closest to the base of the respective cells to achieve compliance. The findings of these investigations should be submitted to NRW by 08/06/2018.

### **Surface Water**

Condition 3.1.2 states that the limits given in Schedule 3 shall not be exceeded. Table S3.3 provides limits for the surface water collection system.

Monitoring data submitted shows that P1 did not breach the permitted emission limits during the review period.

P2 breached the permitted limits for ammoniacal nitrogen and total suspended solids. Ammoniacal nitrogen concentrations were over 7x the permit limit (0.25 mg/l) in January, 9x the permit limit in February and 3x the permit limit in March. Suspended solids were 4x the permit limit (50 mg/l) in January.

**These breaches have been scored a CCS Category 2 breach of permit due to the long-standing nature of these emission limit breaches.**

**Action 7:** The source of the elevated ammoniacal nitrogen should be investigated as a matter of urgency, with findings reported to NRW by 08/06/2018.

### **Emissions to Sewer**

Condition 3.1.2 states that the limits given in Schedule 3 shall not be exceeded. Table S3.4 provides limits for point source emissions to sewer.

Monitoring data submitted shows that emissions to sewer breached the permit limits for pH, suspended solids and total TPH.

**These breaches have been scored a CCS Category 3 breach of permit.**

**Action 8:** The report outlines that the suitability of the current analysis method for TPH for comparison to the visible oil compliance limit is currently under review. Send to NRW the results of this comparison by 08/06/2018.

A total of 6,121 m<sup>3</sup> of treated leachate was discharged between 01/01/2018 and 31/03/2018, which is an increase on the 3,735 m<sup>3</sup> discharged in Q4 2017.

### **Particulate Matter**

Condition 3.1.8 states that the limits for particulate matter arising from the installation set out in schedule 3, table S3.11 shall not be exceeded.

Particulate matter concentrations remained below the permitted limits at all locations during this review period.

### **General Management**

Condition 1.1.1 requires that the operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks or pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

The root cause of the majority of the breaches identified in this CAR is considered to be related to the operator not managing and operating the activities in accordance with the approved management system.

**This breach has been scored a CCS Category 2 breach of permit.**

**Action 9:** The operator shall ensure that site activities are managed and operated in accordance with the approved written management system immediately.

### **Observations**

As previously outlined, whilst the monitoring report format is acceptable, further explanation should be included as to the potential reasons for the breaches of the permitted limits, and why any monitoring requirements have been omitted.

For example, why were no leachate levels reported for LCP2, LCP3 or LCP8 in March, and why was LCP3 not sampled during this review period?

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0033382**

**This form will report compliance with your permit as determined by an NRW officer**

|                        |                                    |            |            |
|------------------------|------------------------------------|------------|------------|
| Site                   | Bryn Posteg Landfill               | Permit Ref | BU7766IC   |
| Operator/Permit holder | Sundorne Products (Ilanidloes) Ltd | Date       | 22/05/2018 |

### Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

We will now consider what enforcement action is appropriate and notify you, referencing this form.

### Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

| Criteria Ref.       | CCS Category | Action required/advised | Due Date   |
|---------------------|--------------|-------------------------|------------|
| See Section 1 above |              |                         |            |
| G4                  | C3           | See comments section    | 08/06/2018 |
| G1                  | C3           | See comments section    | 08/06/2018 |
| E2                  | C3           | See comments section    | 08/06/2018 |
| E2                  | C2           | See comments section    | 08/06/2018 |
| C2                  | C2           | See comments section    | 08/06/2018 |
| E4                  | C3           | See comments section    | 08/06/2018 |
| E3                  | C2           | See comments section    | 08/06/2018 |

## Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

**See our Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

### Non-compliance scores and categories

| CCS category | Description  | Score |
|--------------|--|-------|
| C1           | A non-compliance that could have a major environmental effect        | 60    |
| C2           | A non-compliance which could have a significant environmental effect | 31    |
| C3           | A non-compliance which could have a minor environmental effect       | 4     |
| C4           | A non-compliance which has no potential environmental effect         | 0.1   |

**Operational Risk Appraisal (Opra)** - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General information

### Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. 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 its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

### Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

### Customer charter

#### What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk). If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

#### Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.