

**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	31/05/2017	Time in	10:30	Out
Assessment type	Site Inspection			
Parts of the permit assessed	Landfilling, Gas Emissions, Odour			
Lead officer's name	Zachary, Aled			
Accompanied by				
Recipient's name/position	David Williams / Technical Manager	Date issued	07/06/2017	

### 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
B1 - Infrastructure - Engineering for prevention and control of emissions	C2	3.3.1; 2.9.1
F1 - Amenity - Odour	C2	3.4.1
F5 - Amenity - Deposits on road	C3	3.3.2

**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>3</b>	<b>Total compliance score</b> (see section 5 for scoring scheme)	66
------------------------------------	----------	---	----

**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

### 1. Offsite Odour:

**Permit Condition 3.4.1** states emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise those emissions.

#### **Findings:**

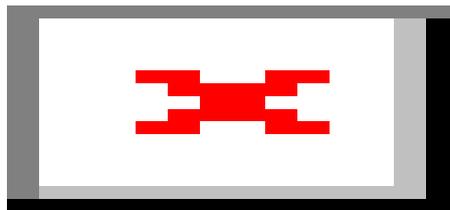
##### **F1 - Amenity Odour.**

Very strong landfill gas odours were detected around the site entrance and Cells 9D(ii) and 9D(i). Landfill gas extraction infrastructure is still not to the required standards to reduce and minimise these odours due to gas emissions

No works have been carried out to abate or reduce the release of Hydrogen Sulphide (H<sub>2</sub>S) from the leachate stored in the intermediate storage lagoon. The use of a "media cover" or pre treatment of leachate to reduce and prevent de-gassing of the lagoon or treatment prior to storage has been discussed at length but no such improvement works have been completed.

Off-spec compost is still being used as a daily cover material on some areas of the operational cells. This material is likely to be increasing the odour potential of the site, adding another source of organic carbon to the landfill cells and potentially providing a habit or attracting pests such as flies.

The working area of the active landfill cell is also still very large, this is creating issues with emissions, water ingress and ultimately effective control of odours:



These issues as a whole are deemed a breach of condition 3.4.1

**Due to the ongoing impact of odour from the site on local residents these issues have been scored a Category 2 breach of the permit requirements.**

### 2. Gas and Leachate Control Infrastructure.

**Permit Condition 2.9.1** states that the limits for leachate listed in Schedule 4 table S4.1 shall not be exceeded.

**Permit Condition 3.3.1** states that fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition where appropriate measures have been taken to prevent, or where that is not practicable, minimise, those emissions.

**Findings:**

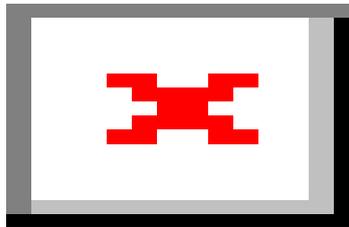
**B1 - Engineering for prevention and control of emissions.**

**Leachate:** We have yet to receive evidence or confirmation that leachate heads on site are back within permitted levels. The continued high levels of leachate in Cells 9D(i) and 9D(ii) are also leading to other operational issues including the efficacy of landfill gas extraction. Low levels of rainfall thus far this year have provided ample opportunity to make significant headway with this issue.

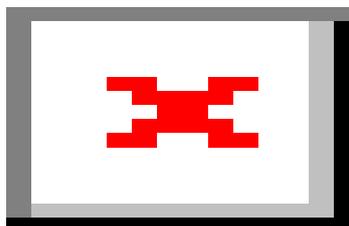
**Landfill Gas Emissions:**

Emissions monitoring of various areas of the operational or recently operation cells was done via a Gazomat Laser diode methane detector. The results are summarised below in parts per million (ppm) Methane recorded:

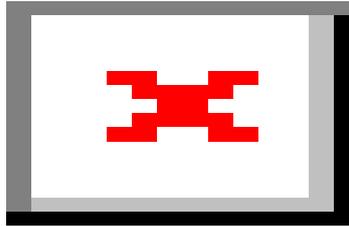
- 15ppm detected ambient adjacent to the weighbridge. This is a level of emissions more typically expected from an operational area.
- Between **530ppm - 10,000ppm** detected from the eastern flank of Cell 9D(ii) along the eastern edge, opposite the MRF and adjacent to the cell entrance:



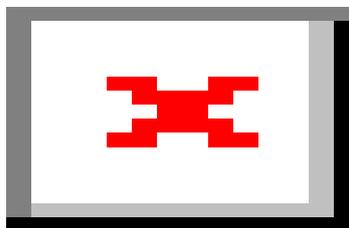
- Gas well adjacent to the cell entrance of 9D(ii) was noted as **under positive pressure** with significant odour present. **50,000ppm - 200,000ppm (20%)** recorded from the base of this well:



- Between **150 - 230ppm** was detected ambient being emitted from the surface of the waste of Cell 9D(ii) close to the cell entrance and where the Bulldozer was parked:

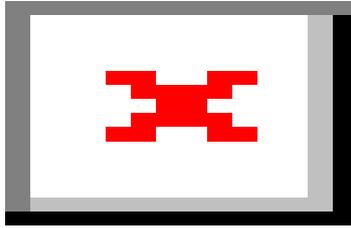


- Around **1800ppm** was recorded from the base of the newly drilled well on the northern bench of Cell 9D(ii)
- Up to **42.5% (425,000ppm)** was detected from the western most leachate tower in Cell 9D(ii). The tower was not under active gas extraction and significant odour was detected around this area.
- The 4 new wells drilled on the western bench of cell 9D(ii) were inspected. Three wells were producing good gas flow and there was minimal odour around this area. The bentonite seals for the wells should be monitored for dehydration or fernco type seals / couplers used to ensure the seal remains effective:

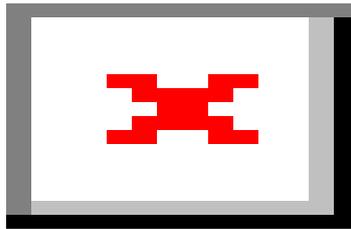


- **15,000ppm** was recorded from the Western flank of Cell 9D(i), this area has been problematic historically and raised a number of times.

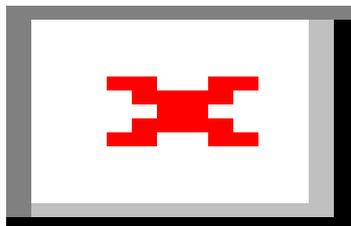
- Up to **6% (60,000ppm)** detected from South West corner of Cell 9D(i) where the old cell access point used to be. A scavenging well had previously been buried in the area but clearly is not providing adequate control of emissions in this area:



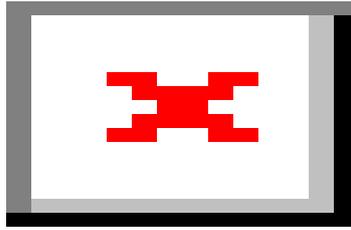
- Up to **9000ppm** was detected being emitted from the under engineering drainage pipe on the south east corner of Cell 9D(i), this feature has been identified as an area of high emissions in numerous previous inspections:



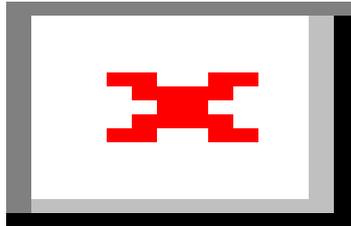
- **42% (420,000ppm)** was recorded from the exposed geotextile on the Southern Flank of Cell 9C adjacent to a scavenging well. This area has been identified as problematic during multiple previous visits and it clearly indicative of a serious issue with gas under pressure at depth in this area:



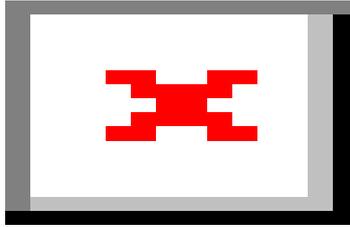
- **Up to 5000ppm** was recorded from the Surface Water collection ditch on the Southern Flank of Cell 9C. Vegetation die off visible on the left hand side of the picture below:



- Between **2.9% - 20% (200,000ppm)** methane recorded from hole in the temporary cap at the intersect between Cells 9B and 9A, adjacent to scavenging well SCO1. Vegetation die off in this area again visible:



- Around 300ppm methane was recorded ambient walking along the crest of Phase 9C towards phases 7 & 8. This suggests there is a very large amount of landfill gas current being lost to atmosphere / under extracted in the operational area of the site at present
- **100,000ppm (10%)** recorded from the base of GW69. The cause for this emission should be investigated.
- **2000ppm** recorded from the base of GW66. The cause for this emission should be investigated.
- **12,000ppm** recorded from the surface of Phase 8, significant vegetation die off in this area noted suggesting a long standing and significant gas emission:



The above issues suggest significant and persistent issues with fugitive emissions of landfill gas. Many of the points recorded during this inspection have been noted during previous inspections and audits.

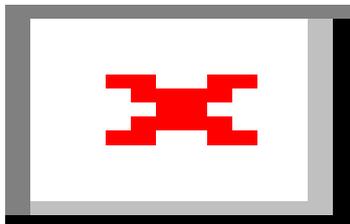
**The above issues are considered breaches of conditions 2.9.1 and 3.3.1 and taken as an aggregate have been scored a Category 2 breach of the permit requirements as a result.**

### **3. Measures for prevention of mud on the highway.**

**Permit Condition 3.3.2** states that litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breaches this condition if appropriate measures, have been used to prevent or where that it not practicable, to minimise, the litter and mud

#### **Findings:**

There does not appear to be an operational wheel washing facility at the Landfill site or measures to prevent or minimise mud emissions onto the public highway. Condition of existing wheel wash:



Although weather conditions were dry at the time of inspection a light film of mud could be seen leaving the site. This is likely to be exacerbated during wet or inclement weather conditions and especially if plant and machinery are going to be attending the site to begin capping works in the near future.

**This issue is deemed a breach of condition 3.3.2 and has been scored a Category 3 breach of the permit requirements.**

:



## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0031702**

**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	31/05/2017

### 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			
F5	C3	Submit a plan detailing how mud will be prevented from leaving the site via the implementation of a new wheel wash facility or other appropriate measures.	04/07/2017
B1	C2	<p>1. Reduce leachate levels back to within the permitted compliance limit by 08/08/17.</p> <p>2. Investigate and address all areas of high ambient and point source gas emissions identified in this report. Implement the use of regular emissions monitoring via FID or Laser Diode Methane detection to prevent and detect further emissions.</p> <p>3. Use measures such as temporary and permanent capping (but not limited to) to reduce fugitive emissions of landfill gas by 31/10/17</p>	08/08/2017
F1	C2	<p>Use appropriate measures to reduce and minimise the emission of landfill gas and other sources of odour on site, including but not limited to:</p> <ul style="list-style-type: none"> <li>- Identification and remediation of point sources of odour</li> <li>- Landfill gas extraction and control</li> <li>- Use of appropriate levels and types of daily cover</li> <li>- Use of temporary capping</li> <li>- Minimisation of odour from leachate treatment process</li> <li>- Reducing the active tipping area to a more manageable size</li> </ul>	08/08/2017

## 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. 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.