

**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	20/09/2018	Time in	10:00	Out	14:50
Assessment type	Audit				
Parts of the permit assessed	All below				
Lead officer's name	Ellis, Rhys				
Accompanied by	McClymont, James				
Recipient's name/position	David Williams/ Technical manager	Date issued	05/10/2018		

### 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
B1 - Infrastructure - Engineering for prevention and control of emissions	C2	2.9.1
C1 - General Management - Staff competency/training	C2	1.1.1
E1 - Emissions - Air	C2	3.1.1
E3 - Emissions - Surface water	C2	3.1.2 table S3.3

**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>4</b>	<b>Total compliance score</b> (see section 5 for scoring scheme)	124
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**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

Wind direction was from the south. Prior to going on site officers did a drive around the area and no off site odour was detected. Weather on arrival to site was damp with light rain which escalated to heavy persistent rain towards the end of the visit.

### **B1 – Engineering to control emissions. Leachate treatment lagoon repair work**

You showed us the on going works in relation to the leachate treatment lagoon. You advised that you are planning to install a new HDPE liner. Other works such as making the de sludging chamber redundant together with taking old pipework etc out are planned to avoid the need to penetrate the liner.

It was noted that the current liner was showing signs of damage in several locations and there is redundant infrastructure penetrating the liner which are potentially contributing to the leachate leakage, some of which is currently collecting in the temporary sump (See photographs). It was clear by our observations noted today that the liner was well in excess of its life expectancy and measures should of been taken much earlier to address these issues.

It was agreed that David Williams would provide a CQA plan for the above works including information on removal of redundant infrastructure. A CQA plan has since been provided to NRW. This plan has been forwarded to the relevant departments for comments and we will respond formally in due course.

**Please note** : Any works carried out by the operator before NRW's response/comments to this plan, will be carried out at the operator's own risk as we discussed on site.

During the visit you provided further information regarding the construction of the leachate treatment lagoon that we were not aware of including the fact that underlying the liner is compacted shale. A review is likely to be required to assess whether the current treatment plant meets the required standards.

It was noted that there was leachate leaking from the treatment lagoon in the vicinity of the southern bank of the lagoon. This was still leaking to ground. There was still discoloured liquid evident in the emergency sump located below the main lagoon. Please ensure that this is collected and disposed of appropriately.

Due to the emissions of leachate to ground the operator is still breaching condition 3.1.2 of the permit.

Due to the fact that works were being undertaken to attempt to stop this discharge and that the fact that the lagoon is now nearly empty a CCS Score will not be applied on this occasion, but we will review the situation and assess compliance against relevant permit conditions once you confirm the works are complete.

Some odour was detected by the balancing lagoon. David Williams described it as smelling salts/ ammonia type smell. Officers also confirmed an ammonia odour.

**ACTION 1** . Please can the site investigate this further to avoid possible escalation to offsite odour etc. Please could you respond back on this matter no later than 30th October 2018. Officers also confirmed an ammonia odour.

### **B1 Engineering to control Emissions - Gas infrastructure and management (Leachate chambers in phase 9).**

It was noted that improvements have been made to the leachate chambers. However, in the vicinity of some chambers there were still strong landfill gas odour detected

Due to the adverse weather it was not possible to inspect all of the chambers in detail, but a quick survey using the Gazomat detected the following.

RMPL9D

1% Methane emission recorded around the lapped HDPE liner  
30ppm between the plastic ring and base of chamber

9C South

Reading below 1000ppm around the vicinity of the lapped HDPE liner  
Readings below 1000ppm between the plastic ring and base of chamber

9D south

Maximum of 50% Methane emission recorded around the vicinity of the lapped HDPE liner  
0.2% between the plastic ring and base of chamber

RMPL9C

0.1% Methane between the plastic ring and base of chamber  
0.7% Methane emission recorded around the vicinity of the lapped HDPE liner

6.3% noticed in cracked soil in the vicinity of chamber where the emergency works HDPE cover had blown away.

Despite works to improve gas collection, point source emissions and issues associated with gas management infrastructure, passive venting of gas is still present on site resulting in breaches of permit condition 2.9.1

Condition 2.9.1 stipulates that the operator shall take measures, including, but not limited to, those specified in any approved landfill gas management plan, to:

- (a) Collect landfill gas; and
- (b) Control the migration of landfill gas

Further improvements are required in regards to gas collection. As a result, a CCS score of 2 is applied.

### **E1 – Emission to air**

In addition to this as a result of unauthorised point source emissions to air from sources such as the leachate towers condition 3.1.1 of the permit has been breached. This condition stipulates that there shall be no point source emission to air except from the sources and emission points listed in schedule 3 of the permit. As a result, a CCS score of 2 has been applied.

**ACTION 2** To avoid this issue escalating it is considered that careful management and balancing is required. It is recommended that a specific operating procedure and routine checklist should be included in your gas management plan for the careful management of gas in these leachate chambers. The relevant revised documents should be forwarded no later than 5th November 2018. We will be inspecting that these updated procedures are followed and completed by relevant staff in future inspections.

**ACTION 3** The operator should investigate further methodologies to help further reduce emissions from these chambers and discuss any proposals with NRW. Proposals should be submitted no later than 5th November 2018.

**ACTION 4** The operator should also remediate the wind damage caused to some of the emergency works carried out recently and inform NRW when this has been undertaken. This must be completed immediately. Photographs of the current damage can be seen below.

### **Carbon monoxide readings :**

GA2000 reading were undertaken by officers at gas wells in phase 9D due to concerns about operator reported high carbon monoxide readings. Reading were taken from the gas wells 306, 312, 316, 320.

Carbon monoxide readings in these wells ranged between 16 and 20 ppm which is considerable lower than what has been previously reported.

Discussions regarding the Operator reported elevated carbon monoxide concentrations are ongoing and will be responded to separately.

### **E2 - Emissions to water Surface Water**

Due to the heavy rainfall during the visit, significant surface water runoff was witnessed on site. The surface water culvert feeding into the watercourse near the weighbridge office was discoloured and in addition to this significant turbid water runoff was feeding into it from sources such as runoff from the northern haul road on site (See photographs below).

The manhole for surface water discharge P2 was lifted (Sample point for surface water of your permit). The discharge was suspected to be in breach of permit condition limit values and therefore a formal sample was taken of the final discharge. The sample appeared to be heavily discoloured.

Environment officers also gathered evidence and collected surface water samples off site to determine the environmental impact downstream of the site.

The sample analysis results are in the Table below.

Date	Time	Location	Parameter type	Value	Permit limit	Unit
20/09/2018	13:30	discharge point P2	0092 / COD as O2	578		mg/l
			0111 / Ammonia(N)	1.1	0.25	mg/l
			0135 / Sld Sus@105C	3390	50	mg/l
			0085 / BOD ATU	64.7	20	mg/l
20/09/2018	14:20	Directly from concrete headwall discharge	0092 / COD as O2	155		mg/l
			3683 / N Inorganic	2.53		mg/l
			0135 / Sld Sus@105C	792		mg/l
			0085 / BOD ATU	7.01		mg/l
20/09/2018	14:28	watercourse downstream of concrete headwall				
			0092 / COD as O2	184		mg/l
			0111 / Ammonia(N)	0.299		mg/l
			0135 / Sld Sus@105C	734		mg/l
			0085 / BOD ATU	16.2		mg/l
20/09/2018	14:39	watercourse upstream of concrete headwall				
			0092 / COD as O2	87.9		mg/l
			0111 / Ammonia(N)	0.03		mg/l
			0135 / Sld Sus@105C	90		mg/l
			0085 / BOD ATU	4.31		mg/l
		Dulas				
20/09/2018			0092 / COD as O2	112		mg/l
			0111 / Ammonia(N)	0.03		mg/l
			0135 / Sld Sus@105C	184		mg/l
			0085 / BOD ATU	5.3		mg/l

In summary suspended solids are 68 times the permit limits , whilst Ammonia is over 4 times the permitted limit and BOD is over 3 times the permitted limit. As a result, the operator has breached limits stipulated in the permit. It must be noted that there is a clear impact on the receiving watercourse, whilst suspended solid concentration in the receiving watercourse upstream of where P2 enters through the concrete headwall were around 90mg/l, samples taken directly downstream of the receiving watercourse were 734 mg/l.

Whilst ammonia concentration in the receiving watercourse upstream of where P2 enters through the concrete headwall were around 0.03mg/l, samples taken directly downstream of P2 show a results of 0.299 mg/l.

Due to the significant breach in limits of table S3.3 and a significant risk of pollution a CCS 2 score has been noted.

Please also note that an intent to invoice letter will be sent to you in due course in regards to this water pollution incident .

**PLEASE NOTE:** As stressed during the visit the issue of the operator regularly breaching surface water emission limits as per permit condition has been raised on numerous occasions and to date we have seen no improvements to surface water management on site. Natural Resources Wales have grave concerns regarding the continual breaches of emission limit values in regard to surface water.

**ACTION 5** .Due to the lack of improvements and commitment by the operator to improve this situation and the continual breaches of permit, NRW issued a regulation 36 notice on the 25th September 2018 requiring the operator to comply with permit condition 3.1.2 for both P1 and P2 discharges. We hope that relevant responsible site personnel will act upon the seriousness of this on-going issue as a matter of urgency and take all necessary steps to mitigate the impact of your discharge from site.

#### **C1- General Management – Staff competency/ training**

Permit condition 1.1.1 stipulates that the operator shall manage and operate the activities in accordance with a written management system and using sufficient competent persons and resources. The permit breaches noted in this compliance assessment report form raise concerns about the awareness of permit conditions, management systems and associated procedures and plans by the directors and relevant site personnel.

These include :

- Failure to take appropriate measures to reduce pollution to ground from the leachate treatment lagoon. It was apparent from observations today that the liner on the leachate treatment lagoon was in a bad state of repair, and well passed its expected life span. The operator through maintenance schedules and daily checks etc should of addressed this issue before it became a permit breach and an environmental risk.
- Failure to take appropriate measures to reduce pollution of surface water.

As a result, a CCS score of 2 has been applied on this occasion

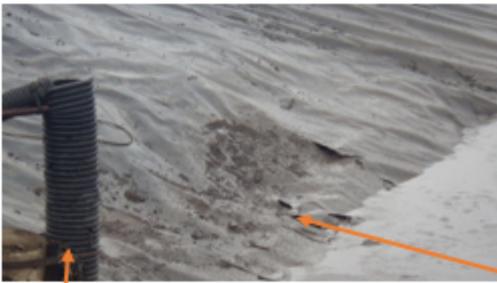
This score is strengthened by the fact that that some of the breaches noted in this CAR form are becoming regular occurrences over a long period of time with no evidence on site of any actions being taken by the operator to bring the site back into compliance. The surface water is a good example of this. NRW have now come to a stage where it had to serve a regulation 36 notice on the operator requiring them to comply with the relevant permit conditions.

## Photographs

Leachate treatment lagoon



'Bulge' underneath liner (possibly  
Sludge escape during stripping of the liner)



Some tears in lining visible.

Old Penetrating structure will be taken out to avoid  
the need to seal around them and to reduce the risk of future  
pathways/leaks around those structures



Possible pathway for leaks around concrete slab.



Emergency sump located below the leachate treatment lagoon with escaped leachate still draining into it



Valve connected to de-sludging chamber which will be made redundant together with the de-sludging chamber itself.



Significantly runoff deriving from site during time of visit, which was entering directly into watercourse



Significantly contaminated surface water on site |



Formal sample of P2 discharge from site.



Wind damage caused to some of the emergency works carried out recently

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0033999**

**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	Date	20/09/2018

### 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			
C1	C2	See actions in CAR form	05/11/2018
E3	C2	Action 5	09/04/2019
E1	C2	See ACTIONS 2,3 and 4	05/11/2018
B1	C2	Refer to ACTION 2,3 and 4	05/11/2018

## 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. 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.