

Compliance Assessment Report

Report ID:
CAR_NRW0033671

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	04/05/2018	Time in	08:44	Out	14:37
Assessment type	Audit				
Parts of the permit assessed	All below.				
Lead officer's name	Ellis, Rhys				
Accompanied by	Arlett, Timothy				
Recipient's name/position	David Williams / Technical manager	Date issued	02/08/2018		

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	3.7.1
C1 - General Management - Staff competency/training	C2	1.1.1

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.

Number of breaches recorded	2	Total compliance score (see section 5 for scoring scheme)	62
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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

The main purpose of today's meeting was to observe CCTV surveys being undertaken on site. The purpose of this was to verify permitted dip levels for all leachate monitoring points stipulated in the permit utilising a camera survey. The aim also was for the operator through this survey to confirm that the leachate chambers are still linked to the drainage layer and active and are still fully serviceable.

Please note that there has been a delay in the issue of this CAR form due to NRW waiting for the summary of result from SGG and further to this a full report reference 3379-CAU-XX-XX-CO-V-9102.A0-C1 received on the 13th July 2018.

David Williams (site manager) forwarded the initial SGG survey findings on the 21st May 2018 which were summarised in the below table 1 below.

Table 1

DATE.	CHAMBER I.D.	LIQUID. (m).	BASE. (m).	HEIGHT A.G.L. (m).	TOP DATUM. (mAOD).	BASE DATUM (mAOD).	NOTES.
	Sump 1						
03/05/2018.	Sump 2-GW7	30.60	33.66	1.07	348.53		Steel chamber.
03/05/2018.	Sump 3-GW69	24.30	29.10	1.36			There are ledges in this concrete chamber.
04/05/2018.	Sump 4	11.67	12.65	0.60	327.12		H.D.P.E. chamber.
04/05/2018.	Sump 5	14.66	16.16	1.30	323.78		H.D.P.E. chamber.
04/05/2018.	Sump 6-GW106	22.99	23.92	1.30			Concrete chamber with a liner installed.
03/05/2018.	Sump 9A-GW30	22.40	24.50	0.55			Concrete chamber with a liner installed.
03/05/2018.	Sump 9B-GW33						Severe obstruction approx 19.00m down.
04/05/2018.	Sump 9D	17.15	18.74	1.80	334.63		Concrete chamber. Waste between rings at approx 3.30m down.
04/05/2018.	Sump 9D Remote.		15.46	2.10	335.04		Debris on the base of this chamber.
03/05/2018.	GW32						Concrete chamber with an "aquapipe" or similar pipe visible from around 9.50 m down. Obstruction at approximately 12.00m down in concrete chamber.
04/05/2018.	Cell 9C/GW35	17.75	20.10	1.20			Concrete chamber with a severe obstruction at approximately 15.30m down.

NRW's initial review on the data submitted concluded that the data raised more questions. for example;

SUMP 9D, the depth of well should be around 27.63m. When the 'BASE' detected by SGG was subtracted, that gave a depth of only 18.74, there seems to be 8.89m missing.

This seemed to be a common trend with the other chambers too.

It was advised that before NRW drew any conclusions from this, it was imperative that the operator looked into this data and scrutinise it further with a report to follow it up in detail.

On the 13th July 2018 a letter was received from Caulmert (ref 3376-CAU-XX-XX-CO-V-9102.A0-C1). This letter details the review of the leachate monitoring infrastructure and further investigates observations noted on site on the 4th May 2018.

The response concludes that the results indicate that obstructions are present in a number of primary extraction sumps, which

would deem them not fit for purpose for leachate extraction to sufficiently low levels to comply with the permit for the site (as highlighted in table 2 below (taken from the letter).

Table 2

Point	Alias	mAOD	Phase	Base of cell	Dip to liquid	Dip to base	Base of well in mAOD	Leachate head
GW34		349.04						
LCP1		318.91	1	310	6.39	7.2	311.71	1.71
LCP2	Sump 2	348.51	4A	311	34.14	34.34	314.17	3.17
LCP3	Sump 3	350	4B	311	28.9	29.6	320.4	9.4
LCP6	Sump 6 GW106	339.26	6	310	23.44	24.2	315.06	5.06
LCP7	Sump 4	327.12	7	310	12.59	13.03	314.09	4.09
LCP8	Sump 5	323.78	8	310	12.6	16.48	307.3	-2.7
RMPL9A	Sump 9A GW30	334.83	9A	307	22.65	24.75	310.08	3.08
RMPL9A North		340.93	9A					
RMPL9B	Sump 9B GW33	342.68	9B					
RMPL9B West	Cell 9C GW35	340.67	9B					
RMPL9C		334.11	9C	307	22.69	25.97	308.14	1.14
RMPL9C south		334.62	9C					
RMPL9C North		321.6	9C					
RMPL9D	Sump 9D	334.62	9D	307	18.77	18.77	315.85	8.85
RMPL9D North		332.25	9D	307	20.77	24.12	308.13	1.13
RMPL9D South	Sump 9D remote	334.82	9D	307	15.77	15.77	319.05	12.05

In addition, the letter raises concerns on the sites ability to ensure compliance of leachate limits (1m above sump base), particularly when some of these are potentially blocked several meters from the base of the well. The report concludes an issue with all leachate chambers.

The operator has confirmed that in regards to the right hand column, there is currently uncertainty if this is the leachate head. This column reflects the height of the liquid encountered above the level assumed for the base of that cell. You currently don't know if the liquid is in continuity with the base.

ACTION 1: Operator to undertake further investigations an confirm 'actual' leachate levels. Please respond no later than 29th August 2018.

ACTION 2. Operator to confirm the date when the mAOD for Table 2 were surveyed and by whom and were these taken from waste level. Please respond no later than 29th August 2018.

ACTION 3. Some data is missing in the table 2. For example data for RMPL9B, which is a permitted monitoring chamber. Why is there no data for this chamber and why were the other chambers listed in the table not investigated and data provided as these appear to be a remote monitoring chambers. Please include all data and its interpretation no later than 29th August 2018.

ACTION 4. Can you confirm which points in Table 2 relate to the permitted chambers listed in table S3.1 of the permit to avoid any ambiguity. Please could you respond no later than 29th August 2018.

ACTION 5. Reported data for LCP8 is a minus number. Please could you provide an explanation no later than 29th August 2018.

ACTION 6. Some of the leachate monitoring chambers are listed as gas wells. Please could you clarify the reason for this no later than 29th August 2018.

ACTION 7. Drawing number 3376-CAU-XX-XX-DR-V-1803 needs reviewing to ensure accuracy. Examples, but not limited to, include

* RMLP9B South located in phase 9D, is this correct?

* Are LCP1 and Sump 1 correctly marked on the drawing

* Sump 9X appears absent etc.

Please also include a layer on the document/plan to include recent ground survey results. Please forward revised diagram no later than 29th August 2018.

B1 – engineering to control emissions

Due to the leachate chambers being not fit for the purpose as demonstrated in your recent investigations and the reasons highlighted above the operator has breached condition 3.7.1 which requires leachate to be monitored as specified in Table S3.1 which also cross references the guidance on the monitoring of landfill leachate. This breach has attracted a **score of 2** due to it having a potentially significant environmental effect, i.e reduces the ability of the operator to monitor actual true leachate levels, reduces the ability to extract leachate (particularly if wells are blocked), raises concerns on reliability of submitted data and most importantly if true leachate levels are higher than reported, the site could be breaching permitted limits. Excessive leachate head levels have a risk of affecting the effectiveness of gas collection on site and risk of polluting surface and groundwater. Our concerns are exacerbated by the fact that your report indicates that there is an issue with all permitted leachate monitoring points and indicates that the majority are not suitable for use.

ACTION 8

Site to provide details of proposed actions for the remediation / replacement of the leachate monitoring chambers to comply with condition 3.7.1 and Table S3.1 (including timescales) no later than 29th August 2018.

C1- General Management – Staff competency/ training

The above issue has also resulted in a breach of condition 1.1.1 of your permit .

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 breach noted in this compliance assessment report form raise concerns about the awareness of permit conditions and relevant guidance such as LFTGN02. It raises questions on why the issue of the suitability and integrity of these leachate chambers were not noted and investigated sooner. Relevant personnel should have carried out a review on the depth to base of all leachate -monitoring points regularly (as advised in LFTGN02), to check for evidence of silting or blockage, the operator should have used this information to assess whether monitoring objectives are being achieved.

As a result, a **CCS Score of 2** has been applied.

ACTION 9

Your leachate management plan does say that LCP6, RMLP9A and 9B are sealed. It is our understanding that some of these now can be dipped although sealed. Please could you confirm how they are dipped if sealed and which ones remain sealed with no access for monitoring to meet permit requirement.

Other matters and discussion

Although the main purpose of today's visit was to witness the leachate chambers infrastructure. The following observations and discussions were undertaken on site.

- SGG undertaking repair work on one of the gas collection lines (located near the gas main following machinery puncturing the gas line (Photograph 1). Please note that in the event of a breach of permit (i.e emission to air) the operator must immediately inform Natural Resources Wales.
- David Williams took officers to 'Sump1' which has been confirmed as a source of emission on site. Improvements are imminent to seal this chamber to improve emissions. Emission of 20,000 ppm Methane were detected from the sump during the visit. See Photograph 2.
- * Observations made during the visit suggest that soils are still being imported. As you are aware, NRW are investigating the status of this material and whether it should have been classified as waste. Whilst our investigation is still underway, our initial view is that the soils are waste and therefore their acceptance since 18th January 2018 is in breach of the suspension notice. We will confirm our view once the investigation is complete but the acceptance of further soils of this nature to site is at your own risk.
- Ongoing Significant methane emissions were still detectable on cell 9, areas include
 - 27% methane concentration noticed in the vicinity of the entrance to the haul road and 4 % detected in leachate ponding on the surface area
 - **9C Remote** between 62 ppm and 50ppm. Hole noticed 7000ppm (Maximum of 0.4% recorded)
 - **9C Permit** (tall located on the flank). Hole noticed at the side of the chamber 60-61% noted and up to 23% around the base.
 - **9D Permit** Background 150 ppm, base of chamber ranged between 4% and 33%. (620ppm a few meters away)
 - **9D Remote** varied between 24% and 43% and (1000ppm on the surface in the vicinity of chamber)
 - **9D remote monitoring**, base varied between 12% and 32 %(1000ppm on the surface).

It was noted that some improvements had been made to the leachate chambers to try and reduce methane emissions however these appeared to be not effective in reducing emissions as demonstrated in methane emissions readings noted today. You did confirm that improvements efforts made to date are not your proposed final solution.

Permit breaches associated with the gas emissions noted above will be consolidated with the breaches noted in compliance assessment report reference NRW0033397 completed for the audit undertaken on site on the 18th and 19th April 2018.

We will however review progress in relation to gas collection in future visits.



Photograph 1: Sump 1



Photograph 2: Attempts made to reduce methane emission from Leachate chambers.



Photograph 3. Repair work on one of the gas collection lines

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0033671**

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	04/05/2018

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			
B1	C2	See Action 1	29/08/2018
C1	C2	See actions in CAR form	29/08/2018

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.