

Compliance Assessment Report

Report ID:
CAR_NRW0034132

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

Site	Giants Grave Landfill	Permit Ref	SP3298FT		
Operator/Permit holder	Neath Waste Management Co Ltd				
Regime	Waste Operations				
Date of assessment	03/04/2018 - 30/10/2018	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Annual Report				
Lead officer's name	Thomas, Ffion				
Accompanied by					
Recipient's name/position	Michael Jones / Waste officer	Date issued	30/10/2018		

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
B3 - Infrastructure - Site drainage engineering (clean and foul)	C3	Condition 2.7.1 Table S3.2 as 1 x CCS Cat 3.
E1 - Emissions - Air	C3	Condition 3.1.7 Table S3.6
	C3	Condition 3.1.7 Table S3.6
E2 - Emissions - Land and groundwater	C3	Condition 3.1.5 Table S3.4
	C3	Condition 3.1.5 Table S3.4
	C3	Condition 3.1.5 Table S3.4
	C3	Condition 3.1.5 Table S3.4
	C3	Condition 3.1.5 Table S3.4
	C3	Condition 3.1.5 Table S3.4
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C3	Condition 3.1.5 table 3.5
	C3	: Condition 3.5.1 (b) table 3.3
	C4	Condition 3.5.1(b) table 3.2 – refereeing to agreed change in CAR NRW0027079
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3	Condition 4.3.1 (b) and 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.

Number of breaches recorded	13	Total compliance score (see section 5 for scoring scheme)	48.1
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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

Giant Grave – Compliance Review of the 2017 Annual Report.

This Compliance Assessment Report (CAR) form has been completed following compliance review of the 2017 Annual Report for Giants grave landfill.

Information received:

1. Giants Grave Landfill Site Annual Environmental Monitoring Report 2017 Environmental Permit SP3298FT. C & P Environmental Limited, Report ref: CP4259-SP3298FT-2017, March 2017.
2. Giants Grave Landfill Site Annual Environmental Monitoring Report 2017 Environmental Permit Number HP3535PS. C & P Environmental Limited, Report ref: CP4259B-HP3535PS-2017, March 2018.
3. Landfill gas data – email submissions

Background:

The above reports were received via email on the 3rd April 2018, with further email submissions on the 20th and 23rd April 2018 providing gas data. The reports and data were reviewed and shared with NRW internal departments, Geoscience and Industry regulation for review of hydrogeology and gas data respectively.

There were two permitted areas for the wider Giant Grave landfill site near Neath. Permit HP3535PS This landfill was never constructed, and the permit has since been surrendered as of 21st March 2018.

Permit SP3298FT has taken waste and is now closed and capped. Both areas are in the aftercare stage. Both sites use the same monitoring locations and so comment by Geoscience our made on both permits.

Report ref CP4259B-HP3535PS-2017:

Permit HP3535PS does not have any compliance limits (trigger levels) or control levels for groundwater or leachate as there has been no waste deposited at the site. There are some elevated levels above previous background levels for ammoniacal nitrogen and chloride within the groundwater. There is little decision on these elevated sampling results; although slightly covered in the SP3298FT annual report. As this permit has now been surrendered we will not make further reference to them here.

Report ref CP4259-SP3298FT-2017:

Within the permit SP3298FT compliance limits (compliance limits = trigger levels) have been set in the permit for leachate level, groundwater quality, surface water and gas. Below compliance assessment has been made following review of the annual report and documented under the

report headings. Leachate, Ground water, Surface Water and Gas.

During 2017 a new monitoring strategy changing the sampling frequency was implemented by the permit holder. Unfortunately, this has led to a number of omission in sampling leading to permit breach (which are scored below under the relevant headings)– this should be addressed in 2018 with a full sampling regime undertaken as has been recommended in your report submission.

Leachate Section 2.

- Action Comment – the copy of the leachate well location map NRW have for the site does not have the locations of the A series wells marked on it. The two annual reports do not have plans with these leachate wells mark on them either –Please supply an updated plan for the next annual report.

- The leachate level has been set in the permit at 1 m above the base of the liner. The operator has been suggested in this report that this is raise to 2.5 m. (This matter has also previously been suggested in past HRA's but no conclusions reached)

The leachate levels within the LW series of leachate wells remains below the 1m level with only one exceedance at LW3 in September 2017 to 1.3 m.

The recent A series leachate wells, A1301 and A1303, are consistently above the 1m level (between 1.87 and 3.7 m).

Leachate level breach:

These exceedances of leachate level limit are breaches of the permit and so have been scored under: **Condition 2.7.1 Table S3.2 as 1 x CCS Cat 3.**

The regulatory officer has chosen to consolidate these breaches into 1 Cat 3 as (per CCS guidance) there is potential to have an unfair impact on compliance rating of the facility.

Comments on Increasing Leachate Levels:

NRW (Geoscience) could consider the increase in leachate level to 2.5m –However this will need further consideration, needing a review of any proposed/suggested new limits and levels, and the full explanation on how they are derived, before fully commenting. The changes to limits would require a permit variation. Pre-application discussions can be facilitated.

Leachate Monitoring schedule breach

The agreed monitoring schedule, as commented in CAR ref NRW0027079, to reduce monitoring from monthly to quarterly was not fully complied with.

Whilst it is understood there may have been some confusions in the changed schedule by the contractors this is a breach of the agreed frequency and therefore a breach of the permit and has been scored under: **Condition 3.5.1(b) table 3.2 – refereeing to agreed change in CAR NRW0027079 as a 1 x CCS Cat 4.**

Leachate quality monitoring breach

Further to the above the annual sampling for hazardous substances required by the permit was not undertaken. This again seems to have been due to a monitoring contractor confusion over the new monitoring schedule.

This is a breach of the monitoring requirements and a breach of the permit has been scored under: **Condition 3.5.1 (b) table 3.3 as a 1 x CCS Cat3.**

Comments on monitoring regime

Though there appears to have been issues with the revised monitoring regime and contractors the regulatory officer has chosen not to record a breach of staff competency as it is now understood that the operator has appointed new monitoring staff in house and the recommendations noted in

the annual report that it is “imperative that the new regime is followed” to remedy this issue is fully supported. The operator must ensure the permit, and in this case the agreed monitoring schedule, is being complied with.

Leachate flow

Further to the annual report an email was received on 5th September 2018 stating “*Section 2.4.3 of the annual report queries the validity of the monthly flow spot checks carried out by the permit holder compared to the automatic logging carried out by NRW. In light of this, is it worthwhile our conducting such tests in the future? Alternatively, could we use NRW data?*”

This enquiry was passed to the Hydrometry & Telemetry team, who have confirmed that NRW does in deed undertake flow monitoring. NRW must manage the data flow asset at the site, but the information/data collected can be made available to the operator (customer)

It is therefore agreed that rather than conducting monthly spot flow samples that the operator (customer) contact the Hydrometry team to obtain this data. The data can be made available either monthly or quarterly but will be caveated, as there are occasions when the data logger will have telemetry errors. Should you wish to progress this request to obtain data this can be done via the site regulatory officer.

Groundwater Section 3.

Groundwater quality monitoring

For groundwater, ammoniacal nitrogen, mercury and arsenic all exceed the compliance limits (trigger levels) set within the permit.

For mercury we note that all locations had positive detections throughout the year and agree that investigation into the laboratory analysis methods should be undertaken – this should be done this year and reports in the next annual report.

Due to the uncertainty in the analysis no breach has been recorded of the limit breach, however no notifications were made of these breaches or issues with the laboratory.

This is a breach of the permit has been scored under: **Condition 4.3.1 (b) and 4.3.2 and scored as 1 x Cat 4.**

Ammonical nitrogen and arsenic have exceed the compliance limit in a number of boreholes with spikes at certain times of year –

Ammonical nitrogen breaches: BH9 – Jan, BH12 and BH15 in Sept.

These are breach of the emission limits requirements and breaches of the permit have been scored under: **Condition 3.1.5 Table S3.4 as 3x CCS Cat 3**

Arsenic breaches: BH43 – July, BH45 April. BH9- April

These are breach of the emission limits requirements and breaches of the permit have been scored under: **Condition 3.1.5 Table S3.4 as 3x CCS Cat 3.**

Again, no notification was received for these breaches. This has already been scored above and so will be consolidated into that score.

Groundwater monitoring Schedule

Further to the above the annual sampling for hazardous substances required by the permit was not undertaken. This again seems to have been due to a monitoring contractor confusion over the new monitoring schedule.

This is a breach of the monitoring requirements and a breach of the permit has been scored under: **Condition 3.1.5 table 3.5 as a 1 x CCS Cat3.**

Action Comment

No further investigation or decision was given for these breaches nor any actions suggested – this need further consideration in the next annual report. Notification of breaches of emission limits need to be submitted.

Report Recommendation comments:

Due to the exceedances of compliance limits within the groundwater the permit holder has suggested a review of the compliance limits and control levels for ammoniacal nitrogen and arsenic, by either lowering the existing compliance limit and control level, but then does not suggest a new value.

Other options included further monitoring with the new monitoring frequency for another year or not to change the limits and level.

We agree with these suggestions but will need to review the new suggested limits and levels (including full explanation on how they are derived) before fully commenting. The changes to limits would require a permit variation.

The action to undertake mercury monitoring monthly is agreed and review of robustness of the laboratory test method and data considered as part of an ongoing review following the change to the sampler.

Surface water section 4.

There are no emission limits set within the permit but set within the aftercare plan that is incorporated into the permit as an operating technique. There is a discharge consent related to the site. (this has not been reviewed under this CAR form)

Report Recommendation comments:

For surface water monitoring we note the proposal to recalculate the ammoniacal nitrogen at both the up and down stream monitoring location on the River Neath as samples exceed the compliance limits and control levels. We agree this may not be fit for purpose, but no further comment is given, this will be required before any changes can be agreed.

Further investigation is required on the exceedances – are there up stream sources? although ammoniacal nitrogen does increase from the upstream monitoring point to downstream – indicating that the landfill is the potential source. Are samples taken at the same tidal cycle?

Landfill Gas Section 5.

Internal comment following review of the gas data are yet to be received but this work will be followed up as part of a separate compliance assessment (it is understood changes may have been made to the contractors? – please confirm)

Landfill gas monitoring:

As per the ICOP, compliance limits have been set in the permit against perimeter landfill gas for methane. (there are no limits for in waste gas boreholes, but there are monitoring requirements and management and control system requirements)

There were 2 breaches of perimeter limits in BH12 and BH15 in November.

These are breach of the emission limits requirements and breaches of the permit has been scored under: **Condition 3.1.7 Table S3.6 as 2x CCS Cat 3.**

Again, no notification was received, but this has not been scored, it is again consolidated, as assessed and detailed above.

Action comments:

The comment to review these boreholes following the 2018 Q1 results is agreed.

Report Recommendation comments:

As stated a further compliance assessment of gas management will be undertaken in due course. However, the recommendations related to the inclusion of BH3W into the monitoring schedule is agreed. The suggested compliance limits for BH3W and BH1B are noted to be below the action level calculations.

The calculation does not include a full explanation on how they are derived, this will be required before any agreement can be made and the changes to limits would require a permit variation application.

Summary of Breaches:

- Leachate level breach: Condition 2.7.1 Table S3.2 as 1 x CCS Cat 3.
- Leachate Monitoring schedule breach: Condition 3.5.1(b) table 3.2 - refereeing to agreed change in CAR NRW0027079 as a 1 x CCS Cat 4.
- Leachate quality monitoring breach: Condition 3.5.1 (b) table 3.3 as a 1 x CCS Cat 3.
- Ground water quality notification breach: Condition 4.3.1 (b) and 4.3.2 and scored as 1 x Cat 4.
- Ground water quality limit breaches: Ammonical Nitrogen Condition 3.1.5 Table S3.4 as 3 x CCS Cat 3,
- Ground water quality limit breaches: Arsenic Condition 3.1.5 Table S3.4 as 3 x CCS Cat 3
- Groundwater monitoring Schedule breach: Condition 3.1.5 table 3.5 as a 1 x CCS Cat3.
- Landfill gas emission limits breach: Condition 3.1.7 Table S3.6 as 2 x CCS Cat 3

END

EPR Compliance Assessment Report

**Report ID:
CAR_NRW0034132**

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

Site	Giants Grave Landfill	Permit Ref	SP3298FT
Operator/Permit holder	Neath Waste Management Co Ltd	Date	03/04/2018

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.

In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.

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			
E1	C3	review these boreholes following the 2018 Q1 results is agreed.	31/03/2019
E1	C3	review these boreholes following the 2018 Q1 results is agreed.	31/03/2019
G1	C3	No further investigation or decision was given for these breaches nor any actions suggested – this need further consideration in the next annual report. Notification of breaches of emission limits need to be submitted.	31/03/2019
E2	C3	No further investigation or decision was given for these breaches nor any actions suggested – this need further consideration in the next annual report	31/03/2019
E2	C3	No further investigation or decision was given for these breaches nor any actions suggested – this need further consideration in the next annual report	31/03/2019
E2	C3	No further investigation or decision was given for these breaches nor any actions suggested – this need further consideration in the next annual report	31/03/2019
E2	C3	need further consideration in the next annual report.	31/03/2019
E2	C3	need further consideration in the next annual report.	31/03/2019
E2	C3	No further investigation or decision was given for these breaches nor any actions suggested – this need further consideration in the next annual report	31/03/2019
G4	C3	Notification of breaches of emission limits need to be submitted.	31/12/2018
G1	C3	the recommendations noted in the annual report that it is “imperative that the new regime is followed” to remedy this issue is fully supported. The operator must ensure the permit, and in this case the agreed monitoring schedule, is being complied with.	31/03/2019
G1	C4	the recommendations noted in the annual report that it is	31/03/2019

		“imperative that the new regime is followed” to remedy this issue is fully supported. The operator must ensure the permit, and in this case the agreed monitoring schedule, is being complied with.	
B3	C3	NRW (Geoscience) could consider the increase in leachate level to 2.5m –However this will need further consideration, needing a review of any proposed/suggested new limits and levels, and the full explanation on how they are derived, before fully commenting.	31/03/2019

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.