

Compliance Assessment Report CAR_NRW0041172

Permit being assessed: RP3733PC.

For: Trecatti Landfill, held by Biffa Waste Services Ltd

At: Trecatti Landfill Site, Fochriw Road, Merthyr Tydfil, Merthyr Tydfil, CF48 4AB.

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 31/12/2022.

Parts of permit assessed: Annual Returns

NRW Lead Officer: Richard Taylor.

Report sent to: Simon Milford, Site Manager on 15/02/2023.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E3 - Emissions - Surface water	C3 Minor	3.1.2
B3 - Infrastructure - Site drainage engineering (clean and foul)	C4 No impact	2.8.1
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4 No impact	4.3.1(a)
E1 - Emissions - Air	C3 Minor	3.1.7

Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
4	8.2

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
E3	Return to permit limits	31/03/2023
B3	Return to permit limits	31/03/2023
G4	Refer to permit condition 4.3.1 for reporting critical equipment failures	Already completed
E1	Return to ELV limits	31/03/2023

Action criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Biffa Trecatti Landfill

Permit RP3733PC

Annual Round-up for 2022

1.0 Surface Water

Site has two surface water emission points, SWA and SWB. It has 3 other surface water monitoring points which are not discharge points offsite but are measured monthly. During an Environment Agency audit on 16th March 2008, it was agreed that there are external influences on the sites surface water discharge cannot be controlled by site. Site measures SW points A, B and C for pH, Ammoniacal Nitrogen, Suspended solids, and COD and reports monthly. The volume of surface water pumped off site for 2022 was reportedly 98,000m³. In past years permit exceedances which have occurred at the monitoring point A or B (downstream) have not been scored as permit non-compliances if the readings of the incoming stream have been higher. Conversely if the situation is reversed where the outgoing streams readings are higher than the incoming streams, the site can be seen to have an affect on the outgoing surface water. Points A and B were dry for much of the year meaning results were sporadic and those that were achieved came from little flow.

Site carries permit limits for surface water. There were ELV exceedances in Jan 22 for SW B pH (8.3), Suspended solids (173mg/l) and COD (371mg/l) The incoming stream C carried lower limits which indicates that site activities influenced the outgoing results. Therefore, these exceedances are treated as breaches to the permit limits.

Three permit limit exceedances were reported for emission point SWB in January, and one in December. Site issued Schedule 5 reporting forms for both, which explained that minimal flows were occurring at the time. This dilutes the potential to cause environmental harm. Therefore, the ELV breaches are given the lowest score applied to non-compliances to surface water limits without environmental effect.

Date	Medium	Emission Point	Substance	Permit Limit	Site reading
Q1 - Jan	Surface water	SWB	pH	6-8	8.3
Q1 - Jan	Surface Water	SWB	S Solids	100mg/l	173mg/l
Q1 - Jan	Surface Water	SWB	COD	120mg/l	371mg/l
Q4 – Dec	Surface Water	SWB	pH	6-8	9.4

Result – 1 Combined Cat 3 breach for surface water limits at SWB during 2022 breaching the limits set by pc3.1.2

Cat 3 – 4 points

2.0 Leachate

Leachate results are reported quarterly, no permit limits apply to individuated species, but do apply to the depth of leachate within the wells. Leachate is treated on site; caustic soda levels were low throughout the year due to external market forces. Site was compliant in all but one well in the reporting period. The limits

of LW8 exceeded the permit limits in Sept, Oct, Nov, and December 2022 and have been scored as a minor non-compliance to permit limits. There was no environmental effect, but the high levels increase the risk of damage to the site infrastructure and must be kept below permit limits.

Date	Medium	Emission Point	Permit Limit	Site reading
Q3 - Sep	Leachate Level	LW8	33m above base	48.24m
Q4 - Oct	Leachate level	LW8	33m above base	49.93m
Q4 – Nov	Leachate Level	LW8	33m above base	49.25m
Q4 0 Dec	Leachate Level	LW8	33m above base	44.47m

Result – 1 combined Cat 4 noncompliance against permit condition pc2.8.1

Cat 4 – 0.1 points

3.0 Effluent to Sewer

Site reported treating 88,685m³ of leachate to dispose to sewer during 2022. Permit limits apply for a suite of substances. Site reported a pump failure which prevented samples being taken for Jan and Feb 2022. Results for March to December remained compliant to permit limits. The pumps are part of the critical infrastructure for the site and failure of them should have been reported via a schedule 5 form whilst arrangements were made for replacements. A non-compliance to permit condition 4.3.1(a) where the operator must inform NRW of any event which may significantly affect the environment has been issued.

Result – Non-compliance to pc 4.3.1(a) for not informing NRW of leachate pump failure which prevented Jan and Feb results being recorded.

Cat 4 – 0.1 points

4.0 Groundwater

8 monitoring points (GW1 and GW2, GW9,10,11,12,13) are monitored quarterly and annually. Permit limits for a suite of substances differ throughout the site and are borehole specific. NRW monitors overall trends in accordance with the LFTGN02 - H1 - Technical Annex to Annex (j): Hydrogeological Risk Assessments for Landfills and the Derivation of Groundwater Control Levels and Compliance Limits, v2.0, April 2010.

Site reported an exceedance in their Feb 2022 GW2 ammoniacal nitrogen measurement with a 17.7mg/l reading against a limit of 17mg/l but with an uncertainty factor of +/-1.79mg/l. Applying this figure makes it not within NRW's remit to penalise a reading within the uncertainty limit which in this case is 18.79mg/l. Result – no permit breaches to groundwater quality during 2022.

5.0 Perimeter Gas

There were several exceedances to permit limits in the perimeter boreholes during 2022.

Date	Medium	Emission Point	Substance	Permit Limit	Site reading %
Q1 - Jan	Perimeter boreholes	BH22	Methane	1%	Jan 7.5 Feb 7.5 Mar 6.6 May 7.0 Jun 6.6 Jul 2.0

			CO2	10%	Aug 1.5 Sep 3.4 Nov 6.3 Dec 7.7 Nov 14.6 Dec 13.0
		BH7	CO2	10%	Feb 10.4
		BH20	Methane	1%	Sep 1.9 Oct 1.2

Altogether there were 15 exceedances to permit limits for the external boreholes during 2022. This is down on 35 for 2021. The exceedances are scored as a single joint noncompliance to permit condition 3.1.7.

Result – a Cat 3 noncompliance to pc 3.1.7 for breaching external borehole limits multiple times during 2022.

Cat 3 – 4.0 points

6.0 Gas Compound

Site used 14,022,468m³ in 2022 and flared off 713,536m³ which represents 5.08% of the time available. Site therefore did not need to monitor the flare stacks due to this being less than the permit requirement of 10%.

Gas Engines – These are monitored quarterly for CO and NO_x with permit limits applying. Site operates 5 engines currently, Engines 2 and 3 are offline. Site was close to permit limits but did not breach them during 2022.

7.0 Dust PM10's

Site is required to monitor 4 points for particulate matter under 10 microns diameter (PM10's). The permit limits correspond to national air quality guidelines. Limits are applied for deposited PM's as well as asbestos. Site carries out daily averages and reports at 6 monthly intervals. D1 is situated on the NW boundary. D2 is on the Eastern fence next to the gas engine plant. D3 is on the SE boundary. D4 is on the SW boundary. No exceedances for asbestos occurred.

Site reported 5 exceedances in permit limits to the pm10 limit of 200mg/m³ throughout 2022. 2 exceedances at D2 and D3 in May 2022 were checked against wind records. (Ref wunderground-weather). The wind was predominantly from the South on the working part of the day – 8am – 5pm on 23rd May 2022. The 2 monitors are located to the south of the site meaning that any exceedances measured from site dust emissions would expectedly be found on the monitors to the north, not the south. As there was no limit exceeded for monitors D1 and D4, the exceedances cannot be substantiated. Other background sources are likely to be present.

3 exceedances were recorded on Nov 22nd. The wind pattern on this day during operating hours was mainly from the SW, the expected readings would be highest in opposite NE corner. However, the 3 monitors were positioned in the opposite side of the site, in the East, South-East and Southwest. Meaning that the exceedances cannot be substantiated. Again, other background sources are likely to be present.

8.0 Biogenic Reports

Biffa carries out a joint operation with Biogenic within the permit. This operation is included from the issue of permit variation V11 in 2018. Site carries permit limits for the operation of the internal Biogenic plant,

but these are used for quality purposes and tracking rather than strict regulation because the emissions from Biogenie are captured and processed through wider Biffa infrastructure which also carries permit limits. So, any breach of Biogenie surface water is declared and the water treated automatically by Biffa's treatment works - no emissions to the outer environment are made.

Biogenie reported minor exceedances in pH with 8.1, 8.3 and 8.2 in Jan, Nov, and December against an upper limit of 8.0. The water was pumped to Biffa's holding lagoon, Noncompliance scores have been issued for this above.

9.0 List of Site Reported Schedule 5's for 2022.

Medium	Emission Point	Date	Limit	Measurement/emitted
Surface Water-pH	SWB	18 Jan 2022	6-8	8.3
Surface Water-Suspended solids	SWB	18 Jan 2022	100mg/l	173mg/l
Surface Water -COD	SWB	18 Jan 2022	120 mg/l	371 mg/l
Air - Methane	BH222	18 Jan 2022	1%	7,5%
Air – CO2	BH7	25 Feb 2022	10%	10.4%
Air – Methane	BH22	25 Feb 2022	1%	7.6%
Ground Water Ammoniacal Nitrogen	GW2	25 Feb 2022	17mg/l	17.7mg/l with 1.79 uncertainty – no limit breach.
Air – Methane	BH4	18 Jan 2022	3%	9%
Air - Methane	BH4	25 Feb 2022	3%	23.2%
Air – Methane	BH4	17 Mar 2022	3%	29.6%
Air – Methane	BH4	28 Jan 2022	3%	7,1%
Air - Methane	BH22	28 Jan 2022	1%	1.5%
Air - Methane	BH4	22 Feb 2022	3%	12%
Air – CO2	BH4	22 Feb 2022	10%	10.5%
Air - Methane	BH22	22 Feb 2022	1%	14.2%
Air – CO2	BH22	22 Feb 2022	10%	14.9%
Air – CO2	BH22	29 Mar 2022	10%	10.1%
Air – Methane	BH4	29 Mar 2022	3%	10%
Air - Methane	BH4	22 Jun 2022	3%	35%
Air – CO2	BH21	22 Jun 2022	19.2%	22.8%
Air – CO2	BH21	3 May 2022	19.2%	22.4%
Air - Methane	BH4	3 May 2022	3%	37.2%
Air – Methane	BH4	13 Apr 2022	3%	37.7%
Air – dust pm10	D3	23 May 2022	200mg/m3/day	550mg/m3/day
Air – dust pm10	D2	23 May 2022	200mg/m3/day	1300mg/m3/day
Water - Leachate	LW8	23 Sep 2022	33m above base	48.24m no emission
Air – CO2	BH21	8 Sep 2022	19.2%	22.5%
Air – CO2	BH21	12 Jul 2022	19.2%	22.2%
Air - Methane	BH4	5 Jul 2022	3%	17%
Water – Leachate level	LW8	21 Oct 2022	33m above base	49.3m
Water – Leachate	LW8	29 Nov 2022	33m above base	49.26m

level				
Water – Leachate level	LW8	15 Dec 2022	33m above vase	44.1m
Air – dust pm10	D2	22 Nov 2022	200mg/m3/day	490mg/m3/day
Air – dust pm10	D3	22 Nov 2022	200mg/m3/day	360mg/m3/day
Air – dust pm10	D4	22 Nov 2022	200mg/m3/day	340mg/m3/day

10.0 Pc 4.2 Annual Production and Treatment

Site produces 14,022,463m³ of landfill gas during 2022. 88,685m³ was flared (5.09%).

Site produced 97,934m³ surface water/groundwater.

Site disposed 88,685m³ leachate.

11.0 Pc 4.3 Performance Parameters

Site used 1,109 tonnes(m³) water during 2022

1,317 MWh energy were consumed.

429 tonnes of raw materials were used.

12.0 Complaints received by NRW during 2022

There were 24 complaints received in the wider Dowlais area. Only one listed concerned the permitted site. This was WIRS 2200916 received on 8th Feb 2022 by the Site Manager who self-reported an issue with potential misclassification of waste. Therefore, NRW did not receive any external complaints against the site during 2022 which is commendable.

End.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

What are suspended scores?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry and Waste action criteria (used in section 1 and 2):

A: Permitted activities

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. 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 our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within 20 working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 – 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.