



Trecatti Landfill Site

Dust Management Plan

July 2022

Trecatti Dust Management Plan

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1.1 Executive Summary

This document has been created to give an overview of the current dust management system at Trecatti Landfill Site. The purpose of the dust Management Plan is to consider the relevant activities that may contribute to the arising and migration of dust at Trecatti Landfill Site, and to detail the remedial/precautionary actions that may be required. The document also gives details of the current infrastructure, procedures and general practices involving dust suppression at the site.

The dust management plan will be reviewed annually from the date of acceptance by NRW and amended as required. Amendments may be made more frequently should a method pertaining to dust management change in the interim and this will be considered to be supplementary to the aforementioned annual review.

1.2 Background and Assessment of Risk

Trecatti Landfill Site is located at NGR SO 082 077 to the immediate north-east of Merthyr Tydfil, approximately 250m east of the village of Dowlais. The land to the north, east and south of the site is predominantly agricultural with the outskirts of Dowlais village to the north-west. The site lies within an area of relatively elevated ground, with the topography falling towards the west and east, towards the Taff and Rhymney valleys respectively.

The site is developed within a void created by historical, opencast coal and ironstone mining. It currently comprises two areas of landfilling; the historic natural containment landfill to the north-east (the “Merthyr Waste Area”), and an area of artificially engineered containment landfilling to the west. Landfilling at Trecatti Landfill commenced within the Merthyr Waste Area in 1986 and proceeded until 1992 when the management of the site transferred from Merthyr Tydfil Borough Council to Biffa. Landfilling is currently in the engineered containment phases located within the western portion of the site, although it is necessary to over-tip the Merthyr Waste Area in order to achieve the full restoration of the site.

The installation is classified as a non-hazardous landfill site under PPC Permit EA/EPR/RP3733PC.

There are a number of potentially sensitive receptors in proximity to the Trecatti landfill site. These have been summarised in a number of risk assessments carried out under H1 and are summarised in Table 1 below.

Table 1. - Location of Receptors in Relation to Trecatti

Receptor Name	Receptor Type	Distance & Direction from the Stable Non-reactive hazardous waste cell	Distance & Direction from the Trecatti landfill site boundary	Receptor reference (and plan showing receptor)
Merthyr Common and Gelli Gaer Common and Ffos-y-fran opencast	Land with common law rights and opencast mineral workings	Adjacent - over 500m (N, NE, S, SW, SE, E & W)	Adjacent – 500m (N, S, E & W)	R1 (BF4857/10/07)
Dowlais Top	Urban Community (Residential)	520m (WNW)	200m (WNW)	R2 (BF4857/10/07)
Grounds and playground	Recreational amenities	505m (NW)	240m (WNW)	R3 (BF4857/10/07)
A4060 & A465 (Heads of the Valley junction)	Main road	475m (NNW)	110m (WNW)	R4 (BF4857/10/07)
Dowlais Top Retail/Industrial Park	Retails and industrial premises	890m (NNW)	460m (NNW)	R5 (BF4857/10/07)
Drainage ditches	Surface water	Adjacent – over 500m (N, NE, S, SW, SE, E & W)	Adjacent & 460m (N)	R6 (BF4857/10/07)
Public Footpath	Public footpath		Adjacent (NNE – E)	R7 (BF4857/10/07)
Fochriw Road	Minor Road	550m (NE – SE)	150m (ENE – E)	R8 (BF4857/10/07)
Lower House Stream Section	SSSI (Site of ecological interest)	3430m (NE)	2700m (NE)	R9 (BF4857/10/02)
Cwm Glo	SSSI (Site of ecological interest)	4000m (SW)	4600m (SW)	R10 (BF4857/10/02)
Cwm Taf Fechan Woodlands	SSSI (Site of ecological interest)	3360m (NW)	3000m (NW)	R11 (BF4857/10/02)

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Receptor Name	Receptor Type	Distance & Direction from the Stable Non-reactive hazardous waste cell	Distance & Direction from the Trecatti landfill site boundary	Receptor reference (and plan showing receptor)
Nant Glais Caves	SSSI (Site of geological and ecological interest)	4780m (NW)	4200m (NW)	R12 (BF4857/10/02)
Abercriban Quarries	SSSI (Site of geological interest)	5115m (NNW)	3800m (NNW)	R13 (BF4857/10/02)
Baltic and Tyle'r bont	SSSI (Site of geological interest)	4140m (NNW)	3600m (NNW)	R14 (BF4857/10/02)
Sarn Howell Pond and Water Course	SAM (Site of historical interest)	1330m (S)	1200m (S)	R15 (BF4857/10/02)
Deserted Iron Mining Village	SAM (Site of historical interest)	1900m (S)	1200m (S)	R16 (BF4857/10/02)
Ywyn y Rodyn reclamation pond 1	Habitats (Great Crested Newts)	-	700m (NE)	1 (BF4857/10/05)
Twyn y Rodyn reclamation pond 2	Habitats (Great Crested Newts)	-	1400m (SSE)	2 (BF4857/10/05)
Fochriw Road	Habitats (Great Crested Newts)	-	1770m (SSE)	3 (BF4857/10/05)
Frostran Quarry (South)	Habitats (Great Crested Newts)	-	1400m (S)	4 (BF4857/10/05)
Merthyr Common (Bogey Roadside)	Habitats (Great Crested Newts)	-	1000m (S)	5 (BF4857/10/05)
Frostran Quarry	Habitats (Great Crested Newts)	-	925m (S)	6 (BF4857/10/05)
Twyn y Rodyn reclamation pond 3	Habitats (Great Crested Newts)	-	1900m (SW)	7 (BF4857/10/05)
Merthry Tydfil Duck Pools	Habitats (Great Crested Newts)	-	1800m (SW)	8 (BF4857/10/05)
Merthyr Tydfil Duck Pools	Habitats (Great Crested Newts)	-	1200m (SW)	9 (BF4857/10/05)

Receptors R1 to R16 were considered in the Nuisance and Health Risk Assessment and associated drawings show the locations of these. Drawing BF4857/10/07, Environmental Site Setting, shows receptors R1 to R8 which are in closest proximity to the site. Drawing F4857/10/02, Cultural and Natural Heritage, shows receptors R9 to R16, which comprise Sites of Special Scientific Interest (SSSI) and Scheduled Ancient Monuments (SAM) within 5km of the site. Receptors 1 to 9 were considered in the Habitats Risk Assessment are shown on drawing BF4857/10/05, Habitats Risk Assessment. Drawing BF4857/10/7, which shows the nearest sensitive receptors, has been updated and includes a windrose based on up to date data.

The Trecatti landfill site has been subject to a number of risk assessments over time to comply with the Agency's, and subsequently Natural Resources Wales, requirements under the H1 Guidance. These included a Nuisance and Health Risk Assessment, submitted in the format required by the Agency for the original permit application. The original permit application (A001) was to supersede the original waste management licence, which had included co-disposal of hazardous and non-hazardous wastes, and the original permit included a stable non-reactive hazardous waste cell for asbestos wastes. The Nuisance and Health Risk Assessment submitted for the original permit application therefore covered the stable non-reactive hazardous waste (SNRHW) cell. Although Biffa did not originally construct the SNRHW cell and had this removed from the permit via variation V003, it was subsequently decided to progress with a SNRHW cell and Biffa applied to reinstate this facility on the Permit via variation V008. In conjunction with that application, the Nuisance and Health Risk Assessment was updated, to incorporate the addition of the SNRHW cell to the permit. The updated Nuisance and Health Risk Assessment is included at Appendix 4, along with a further update to Tables NHRA3 and part of Table NHRA4 subsequently submitted in relation to a Schedule 5 request. At the same time that the Nuisance and Health Risk Assessment was revised, a Habitats Risk Assessment was also submitted, although there were found to be no European statutory sites within 5km of the Trecatti landfill and no nationally designated sites or conservation areas within 2km of the landfill. There were however 9 records sighting Great Crested Newts within 2km of the site (these being shown on drawing BF4857/10/05). An assessment of risk to these 9 locations was determined to be low to very low, as a result of the operation of the SNRHW cell. Variation V008 was granted following assessment of the

above risk assessments. The Revision to the Nuisance and Health Risk Assessment, and the subsequent revision to Tables NHRA3 and NHRA4 is included at Appendix E. The Habitats Risk Assessment is included at Appendix F.

The Permit was later varied again to add additional waste types to the SNRHW cell via variation V012. As part of the permit variation application all of the previously submitted risk assessments were considered. In relation to the amenity risk assessment (Nuisance and Health Risk Assessment) considering potential impacts of emissions of dust, odour, noise, mud or debris (including litter) it was not considered that the variation would pose any significant increased risk to local amenity. This was on the basis that the additional waste types would not display any additional characteristics to those not already posed by the existing EWC codes permitted at the facility. The variation was subsequently granted on the same basis as the risk assessments submitted with variation V008.

Biffa have applied to add a further single EWC code to the permit via variation V013 to include EWC 10 02 07 for waste arising from Celsa comprising waste arising from flue gas control at an iron and steel thermal processing plant. The waste does not display any hazards or properties that are any different to similar flue gas control system wastes from other thermal processes that are already included on the Trecatti permit for disposal, and therefore the existing risk assessments previously approved are again still considered to be valid. Similarly the waste complies with existing WAC limits and is acceptable for disposal at the site. The risk assessments contained at Appendices E and F are therefore still considered to be current. The risk management provisions within this dust management plan takes account of the outcome of these risk assessments.

1.3 Identifying Dust issues Identifying Dust and particulate matter may arise for the following reasons:

1.3.1 Dust Sources Arising at Trecatti Landfill

- Traffic movements on haul roads and the operational area.
- Discharge and disposal of dry waste.
- Soil handling as part of on site soils treatment activities
- Application of cover.
- Site engineering and restoration.
- Climatic conditions

The generation of dust is influenced by wind speed and direction, operating practices and dust suppression techniques.

1.3.2 Other Dust Sources Adjoining Trecatti Landfill

Adjoining dust sources will include the following:

- Ffos y Fran opencast operation
- Heads of the Valleys road widening scheme
- Merthyr Borough Recycling operated transfer station located at Unit 5, Pengarddu Industrial Estate
- Abba Scrap operated scrap yard at Unit 4, Pengarddu Industrial Estate
- Agricultural operations surrounding the site, which may involve disturbance and potential dust release during ploughing and similar operations
- Heads of the Valleys Salvage operated scrapyard at Dowlais Top
- Merthyr Industrial Services transfer station at Unit 3, Pengarddu Industrial Estate
- Welsh Water treatment facility, located Trefechan, Dowlais Top

A number of the above sources, located at Pengarddu Industrial Estate are almost immediately adjoining some of the sensitive receptors identified in Table 1. In the event of a dust complaint, consideration will be given to the potential for the above external sources to be contributing directly to the impact in whole or in part.

1.4 Dust Control, Monitoring and Management Procedures

Dust management is an integral part of site operations and the following measures are employed:

- The review of daily weather forecasts in order to predict the extent to which dust may arise from operations, and which of the measures below are to be employed.
- Visual inspections and observations by site staff of the operational area and site boundary in order to react to changes in meteorological conditions and site activities in a timely manner. This control will be

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supplemented by a CCTV surveillance system of the operational area. Visual monitoring is conducted during operational hours by site staff when the site is operational. Where an incident of dust emissions is noted, the site operative's radio through to the site weighbridge and the weighbridge operative will record an environmental near miss on Biffa's internal electronic Incident Report System (IRS). An instruction will be given to site staff to employ appropriate control measures such as dust suppression via tractor and bowser, an instruction from the weighbridge to delivery vehicles to reduce speed, temporary cessation of tipping of dusty materials and cover of dusty loads with inert material. The actions are also recorded on the IRS. The IRS data is reported at monthly intervals to senior management for review and further action as appropriate.

- In the event that these control measures (such as during extreme adverse weather conditions) are found to be ineffective to control dust, the site will prevent further inputs of dusty waste materials, reduce vehicle and heavy plant operations to minimise release of fugitive emissions of dust.
- Where these measures are found to be ineffective because a specific waste arising displays greater potential for dust emissions than determined during the original waste acceptance procedures, consideration will be given to ceasing further inputs of the waste unless alternative control measures can be implemented. Where it is determined that suitable controls cannot be put in place for future deposits from the same source, such that these pose a high risk of dust emissions, future deliveries will be rejected. A record of any load rejection is made on form DPL04-F03 and retained.
- A 10mph speed restriction is in place on internal site roads, coupled with speed ramps at regular intervals to control vehicle speed in order to reduce the impact of traffic movements on dust generation. All loads arriving at the site are sheeted (or enclosed) and de-sheeted is carried out at the tipping face prior to deposit.
- Regular road sweeping of tarmac haul roads during dry periods will be undertaken in order to keep roads clean and dampen the road surface.
- The existing wheel wash will be maintained in an operational condition to prevent dust and debris being transported onto the access road out of site.
- Water will be applied to haul roads and operational areas during conditions when there is the possibility of dust being generated. This will be undertaken using a tractor and vacuum tanker, or similar. The water will be sourced from on site and off-site lagoons.
- Dry wastes will be pushed over and compacted as soon as practicable after discharge and covered with the next available load or unloaded below the working face in order to minimise the risk of the emission of particulates from the load.
- If the load has been identified as dusty other non-dusty waste material may be placed in front or on top prior to pushing and compacting to minimize dust emissions.

1.5 Monitoring of Emissions of Particulate Matter

The PPC Permit RP3733PC for Trecatti Landfill Site sets out the monitoring requirements for particulate matter at Table S3.1.2 of the Permit.

Table S3.12 Particulate matter in ambient air – limits and monitoring requirements

Emission point ref. & location	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
D1, D2, D3 and D4 identified on Site Monitoring Plan BF4857/10/06 (rev 2).	PM ₁₀	40µg/m ³ - annual mean. 50µg/m ³ - 24 hour mean, not to be exceeded >35 times per year.	24 hours	Six monthly	As per M17 issued July 2013 'Monitoring of Particulate Matter in ambient air around waste facilities'.
	Deposited particulate	200mg/m ² day ⁻¹			
	Asbestos fibres	0.001 asbestos fibres/mL	24 hours	Six monthly	

Following commencement of deposit of material under EWC 10 02 07, red dust drop box waste from Celsa increased sampling will commence at monthly intervals for the first quarter (excluding asbestos fibres) and if results are compliant with the above limits dust sampling will revert back to 6 monthly as above permit condition.

1.6 Additional Controls

The Trecatti Landfill Liaison Group will be contacted if there is any significant dust migration from the installation.

1.7 Public Relations & Complaint Handling

Liaison meetings have temporarily ceased on NRW request due to the lack of interest from stakeholders and the reduction in the number of complaints, these meetings will however be reconvened at NRW request if required.

1.8 Record Keeping

Records maintained under this dust management plan include the following:

- Records of dust incidents logged via the internal electronic IRS system, using near miss reporting form (Appendix C).
- Load rejection forms using form DPL04-F03.
- Schedule 5 notifications where there has been a potential exceedance of a permit emission limit.
- Records of PM10 and deposited dust as permit requirements, via the electronic internal Biffa Environmental Database System (BEDS), this data also comprising part of quarterly environmental monitoring reports to the Agency.

1.9 Review of Dust Management Plan

The dust management plan will be subject to periodic review, which may include following a significant dust event that has been attributed to the on site activities. The review will be conducted by the Site Manager and Environmental Manager.

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Appendix B – Complaint Handling Procedure

Public Relations and Complaint Handling

- Complaints are to be dealt with in accordance with standard procedures.
- Discuss any dust issues at regular liaison committee meetings.
- Keep a log of all the actions taken on site to reduce dust to demonstrate a proactive approach to managing any issues.
- Does site operate an open door policy? Are there any particular individuals who complain persistently? Is it possible to liaise with them, invite them onto site to see for themselves and discuss the problem?
- What regulatory authorities does site deal with? E.g. the NRW, local planners, environmental health officers.
- Is there regular communication with other groups such as landowners, parish councils or action groups?
- Do we involve external contracted public relations firm to deal with certain communications?
- Are site staff trained to respond to queries! media requests etc.
- Do we involve residents with community monitoring schemes?

Management should ensure that all Best Available Techniques are used to maintain 100% compliance with the site licence / planning conditions and any other regulatory permits, and any mitigating / remedial measures are instigated without delay. If the complaint arises from ongoing works / improvements try and give an indication to the complainant when these works should be completed and inform the complainant that it is works approved /supervised by the regulator where possible

Complaint Handling

1. The complainant should be treated politely
2. The complaint should be treated as a genuine concern.
3. A complaint should be investigated and if a response is required then you should follow up the call after the investigation has been completed.
4. If you promise to call back then do so. Feeling that they're being ignored will annoy the most reasonable of people.
5. Do not enter into discussion about the cause until a full investigation has been completed.
6. If a conversation is becoming heated, remain calm and try to end the call as soon as possible, even if you have to call back in a short while.
7. Do not make assumptions about the cause of a complaint.
8. You should always fully assess the situation before coming to any conclusion.
9. If there is no way to resolve the complaint offer to get your line manager to call them.
10. Always record as much detail about the complaint as possible on QF 10/01 Complaint Form if away from computer, or enter directly on Compliance Database.
11. Always ask for the persons phone number (for returning calls) and their post-code (important in future analysis).

Investigating the Complaint

Do not make any assumptions. Always investigate fully and record any findings in a Clear, Factual manner together with supporting information e.g Weather data etc.

Weighbridge**Complaint Handling**

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10. Always record as much detail about the complaint as possible
11. Always ask for the persons phone number (for returning calls) and their postcode (important in future analysis).

This Document should be displayed in the Weighbridge Office

[Appendix C - Near Miss](#)

Location		Date		Time	
Description of the Hazard or Near Miss:					
My suggestion for removing the Hazard:					

Do you consider this a **Hazard**: ☐ Or a **Near Miss**: ☐ (Please mark one)

Where applicable:

• Customer name:

• Conveyance Note Number:


• Contract Name:

Name		Position	
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Feedback and record of actions. To be recorded on Incident Reporting System by manager or supervisor, printed and returned to originator:

Managers Signature		Name		Date	
Originators Signature		Name		Date	
IRS Reference Number:					

[Appendix D – Load Rejection Form DPL04-F03](#)

	Load Rejection Record	DPL04-F03
	This form is to be completed for all loads rejected from site (eg. at the weighbridge, from the disposal area). The form is to be passed to site management asap to allow for any further actions to be taken and the form is to be stored safely in order to demonstrate management systems are in place	
Site:		
Date:		
Time:		
Customer:		
Vehicle Reg:		
Haulier:		
Ticket No:		
Transfer Note Info:		
Waste Description:		
Producer:		
Reason For Rejection:		
Rejected By: (Print & Sign)		
Further Actions Taken:		

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Site Manager:
(*Sign to acknowledge rejection*)
records

NB send a copy to Landfill Enquiries for their

[Appendix E – Nuisance and Health Risk Assessment](#)

Please refer to separate document

[Appendix F – Habitats Risk Assessment](#)

Please refer to separate document