

FUGITIVE EMISSIONS MANAGEMENT PLAN

Environmental and sustainability solutions provided to
BRYN RECYCLING LIMITED

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1.0 INTRODUCTION

1.1 Site Address

Bryn Recycling Ltd
Gelliargwellt Farm,
Gelligaer,
Hengoed,
CF82 8FY

1.2 Operational Location

ST 12393 96501

1.3 Site Description

The area in which the waste would be deposited for recovery is within land that makes up part of Gelliargwellt Uchaf Farm and is centred on grid reference ST 12393 96501. The primary vehicle access is from Gelligaer Road, which is located to the northwest of the site. It also connects neighbouring towns including Gelligaer and Penpedairheol which are located approximately 500m and 1,500m respectively, to the northeast of the site. Penybryn is located approximately 600m to the east, with the Penallta Industrial Estate located slightly further east. Caerphilly is located approximately 8km south of the site.

The site is bound to the south by agricultural land and Parc Penallta Country Park, which comprises an area of public open space and woodland is located approximately 850m to the southeast. Nelson Bog Site of Special Scientific Interest (SSSI) is located 550m to the southeast of the site. Waun Rydd Site of Importance for Nature Conservation (SINC) is located to the east of the site and Coed Gelliau'r – Gwellt SINC is located immediately adjacent (west) to the site and comprises an ancient woodland.

The wider farm site contains an anaerobic digestion facility to the north of the deposit for recovery site with a sandstone quarry to the east. Immediately east of the site is a Materials Recycling Facility (MRF). Part of the deposit for recovery site lies within the permit boundary of the MRF (permit reference number TP3695FC).

1.4 Fugitive Emissions Management Requirements

The preparation of this document has been undertaken using the guidance outlined in Sector Guidance Note (SGN) IPPC 5.06, Developing a management system: environmental permits,

and Control and monitor emissions for your environmental permit. The typical condition regarding emissions of substances not controlled by emissions limits (fugitive emissions) on a permit is as follows:

“Emissions of substances not controlled by emissions limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or, where that is not practicable, to minimise, those emissions.”

The operator shall:

“If notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan. Implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.”

1.5 Fugitive Emissions

This Management Plan addresses the need to manage the potential for fugitive emissions from the operations that may be considered as an environmental impact and a nuisance to neighbouring sensitive receptors and operations. Fugitive emissions include dust, mud, litter and fugitive releases to water and ground.

Fine dusts, fumes and volatile organic compounds can potentially lead to serious health impacts and fugitive leaks to ground or water can have serious effects on water supplies and aquatic ecosystems. You need to prevent or minimise these, no matter how near or far people or other receptors may be.

Other pollutants, such as coarse dust, mud and litter may be only a localised nuisance. However, you do not have the right to cause pollution or nuisance outside your site due to your activities. Your neighbours have a right to expect that your activities will not detract from their quality of life.

They have a right to expect that their environment will be free from emissions caused by your activities either on a continuous basis or at frequent intervals.

Examples of common sources of fugitive emissions are:

- The unloading of delivery vehicles;
- Waste recovery areas;
- Spillages; and
- Accidental loss of containment from failed plant and equipment.

2.0 MANAGEMENT PLAN

The Fugitive Emissions Plan will identify sources and potential sources of fugitive emissions and will consider the risk to sensitive receptors. The fugitive emissions Management plan has been produced with the intention to reduce as a much as possible fugitive emission causing activities.

This Fugitive Releases Management Plan contains:

- An Assessment of the risks of fugitive emission problems, from normal and abnormal situations, including worst case scenarios, for example from weather, temperature or breakdowns and accidents.
- The appropriate controls (both physical and management) needed to manage those risks.
- Suitable monitoring.
- Actions, contingencies and responsibilities when problems arise.
- Regular review of the effectiveness of fugitive emissions control measures.

2.1 References

Documents to be viewed in conjunction with the Fugitive Emission Management Plan are as follows:

- BRY-B01 – Environmental Management System Manual
- BRY-B02 – Environmental Risk Assessment
- BRY-B06 – Accident Management Plan
- BRY-OP03 – Waste Recovery Procedure

3.0 SENSITIVE RECEPTORS

3.1 Personnel on Site

Personnel/operatives working on site are the closest receptors to any fugitive emissions produced on site, however due to consistent working conditions it may be unlikely that

operatives would be particularly sensitive to fugitive emission or to changes/ fluctuations in fugitive emissions. All operatives shall be made aware of the issue of fugitive emissions on site and should be fully conversant with the contents of the Site Environmental Management System (BRY-B01) and this Fugitive Emissions Management Plan.

3.2 Neighbours

Neighbouring buildings and businesses are likely to be the most sensitive receptors to fugitive emission nuisances especially those not operating waste management facilities. Dust, fumes and litter will be particularly noticeable to neighbouring activities. The site is situated within a primarily agricultural area, with some residential. Good relationships with neighbouring land-owners and businesses are paramount in helping to anticipate potential problems and avoid them before official complaints are made. Bryn shall ensure:

- That all neighbouring buildings know how to contact the site if they consider fugitive emissions to be a problem (contact details will be clearly visible on the site sign along with the Environment Agency details); and,
- That any complaints are recorded and that problems, where possible, are dealt with promptly.

3.3 Sites of Special Scientific Interest

There is one Site of Special Scientific Interest (SSSI) within 500m of the site :

- Nelson Bog Site of Special Scientific Interest (SSSI) is located 350m to the south of the site

4.0 CONTROL MEASURES

4.1 Aerial Emissions Dust, Fibres and Particulates

There are activities on site that may create dust which could possibly drift off-site and cause an amenity nuisance. Such activities include:

- Vehicle movements to and from the site, as well as around the site (vehicles may lead to the aerolisation of dust during dry weather).
- Handling, movement and tipping of waste received on site.
- Wind blowing across waste piles.

Dust production may increase during periods of strong winds or dry weather.

4.2 Methods of Prevention

In order to minimise the dust, potentially generated at the site, a set control measures shall be implemented by the site manager to mitigate the effects of potential dust emitting activities identified. General measures will also be taken.

For full details of the plan refer to BRY -B04 Dust Management Plan.

4.3 Dampening

Dampening of material will be carried out in the following situations:

- During periods of dry weather, such as during summer;
- During unloading, when the waste being imported has been identified as dusty;
- When dust emissions are observed by the Site Manager during the visual assessment or by operatives;
- When dust emissions have been observed outside of the site boundary during the daily visual inspection;
- In response to any complaints received about dust from the site; and
- When significant dust is observed on the site during routine site inspections.

4.4 Mud or Dust on the Road

Whenever the site is receiving or despatching wastes, measures shall be provided, operated and maintained with the objective of preventing the deposit or tracking of mud or debris arising from the site onto public areas outside the site, which shall include public highways and areas of public access.

For full details of the plan refer to BRY -B04 Dust Management Plan.

4.5 Odour

Odour is not considered to present a significant risk due to the inert nature of the wastes permitted on site. Nevertheless, any wastes brought to site that are odorous will not be accepted onto site for processing or sorting (See BRY-OP02).

If any complaints are received by the site regarding odour, an assessment of the materials being processed, and the site activities being carried out at the time of the complaint shall be undertaken to determine the cause of the odour with the results of the assessment recorded

in accordance with the operator's wider corrective/preventative actions procedure. If the site is found to be the cause of the odour, remedial action shall be taken immediately to further prevent odour being emitted from site.

4.6 Noise and Vibration

All vehicles, plant and equipment used on site will be operated and maintained in line with manufacturer's recommendations and the site's maintenance schedule, and works will be carried out during operational hours, with the objective of mitigating noise pollution. In the event of excessive noise emanating from the site, remedial action shall be taken immediately. The incident and the remedial action shall be recorded in the site diary.

Refer to document reference *BRY-B05 Noise and Vibration Management Plan* for the full noise and vibration plan applicable to the operations.

4.7 Control of Pest Infestation

It is considered that the inert nature of the waste to be accepted onto site results in the risk of pest infestation being low. Nevertheless, measures shall be implemented and maintained throughout the operational life of the site to control and monitor the presence of pests on the site. An ongoing watching brief for the identification of any pest infestations will be part of the daily routine for site operatives. In addition to this, an inspection of the facility for pest infestations shall be carried out at least at weekly intervals by the site manager and shall be recorded in the site diary.

On detection or notification of pest infestations, or evidence of such, immediate action shall be taken to secure the attendance of a professional pest control contractor, to eliminate the pest infestation. In addition, any waste subject to infestation or that has attracted vermin will be considered for removal from the site. The incident and the remedial action shall be recorded in the site diary.

4.8 Control of Litter

All waste inputs will be recovered in the final location for the waste, hence the risk of litter escaping site is low. Nevertheless, staff will inspect the site daily and remove any litter which has accumulated. Any actions required following a site inspection will be recorded in the site diary. In the event that litter does escape from the site, it shall be retrieved as soon as is practicable, and no later than one hour after the end of the working day.

4.9 Surface Water and Rainwater Control

Any surface water or rainwater generated on site will drain through the permeable site surface or be captured within a series of lagoons located at the southeast corner of the site. The surface water is collected within the MRF yard surface water storage lagoon at the top of the bund. Once capacity is reached, the water is then channelled to the series of three attenuation lagoons situated at the base of the bund. They are also in place to facilitate the collection of any further surface water that is not captured by the MRF lagoon. These attenuation lagoons are linked via stone-filled interconnecting ditches, that enable the filtration of small plastic particles. The third lagoon (final) features a manhole chamber with Hydro-Brake Optimum flow control device that is able to dictate the eventual release of water from the site. There is also an additional farmyard storage lagoon on site that is located at the top of the bund.

4.10 Spillage, Leaks, or Release of Fumes

All spillages will be dealt with immediately. All vehicles, plant and equipment used on site will be operated and maintained in line with manufacturer's recommendations and the site's maintenance schedule, with the objective of preventing environmentally harmful leaks and spills.

In the event of any potentially environmentally harmful leaks or spillages, the following remediation procedure will be implemented immediately and recorded:

- Raise the alarm, giving brief details of location and product involved,
- Close down all isolated operations.
- Remove all sources of ignition.
- Subsequent and appropriate action should be carried out to bring the emergency under control (if safe to do so) and prevent further risk to personnel on and off site and to the environment.
- Prevent spread of spilled product.
- Take steps to contain and safely dispose of spilled product.
- Determine the wind direction and any likely effects of fumes and decide whether emergency services are required.

4.11 Adverse Weather Conditions

Adverse weather conditions may affect fugitive releases given the nature of waste materials accepted onto site.

Weather	Impact
Heavy Rainfall	Heavy rainfall may increase run-off from the wastes being recovered on site. In the event of continuous heavy rainfall all waste management operations may continue subject to a site risk assessment carried out by the site manager and recorded in the site diary, to ensure minimum operation requirements are still available.
Strong Winds	The waste material will be compacted as part of landscaping works, which will also act to consolidate the soil and reduce the amount of dust that can be generated by the wind. During warmer months the waste material can be dampened when conditions are very windy or dry to prevent dust and bioaerosol particles becoming suspended in the air and dispersing.
High Temperatures	High temperatures may affect Fugitive Emissions through dry weather. Dust generation attributable to vehicle movements will be controlled by the maintenance and sweeping of the site access roads. During dry weather action will be taken to spray the roads using a water bowser.
Snow, Frost and Ice	Snowfall, frost and ice are unlikely to affect Fugitive Emissions from the site.

4.12 Fugitive Leaks from Plant

An effective maintenance schedule will be in place to minimise the risk of leaks from on-site plant and equipment. Please see BRY-OP04 for details of the maintenance procedure employed on site.

4.13 Accident Management

Accident management has been identified and covered separately within the site-specific Accident Management Plan (BRY-B04).

4.14 Housekeeping

Good housekeeping practices on site will minimise the potential for fugitive releases. These will include:

- No storage of waste in an area not designated for recovery;
- General housekeeping and inspection procedures maintained. Disinfectant is used as required; and,
- Ongoing maintenance of site plant and machinery.

5.0 MONITORING

Bryn Recycling will ensure, by implementation of a monitoring plan, that fugitive emissions from the site are limited and where possible prevented in the first instance. Through effective mitigation the impacts of any fugitive emissions shall be reduced. The monitoring of fugitive emissions shall include:

- Daily site walkovers;
- Thorough site inspection once a week (minimum);
- End of day litter checks/picks; and,
- A prompt response to any complaints.

Operatives shall be fully conversant with the contents of the Permit, the Management System and Fugitive Emissions Management Plan and will be relied upon to remain observant and to draw attention to any non-conformances, adverse operating conditions and any mitigation or management failure.

Records shall be kept of any monitoring/inspection carried out.

5.1 Dust Monitoring

Dust monitoring will be carried out at four points on the site boundary daily as part of a routine visual inspection of the site. Observations will be recorded and kept onsite.

Operational staff will report if there are significant dust or particulate emissions during the handling and movement of waste on site. Where dust emissions are high during the handling and movement of waste, operations will cease, and the site boundary will be inspected to ensure that dust isn't being emitted from the site. If dust emissions are observed outside of the downwind site boundary then material shall be dampened before works can recommence.

Dust monitoring will only be carried out during operational hours, when waste is being imported to site and used in landscaping works, when the potential for dust generation is greatest. Where regular complaints are received over a two-week period the dust mitigation measures will be reviewed.

Dust monitoring results, including the dates, times, wind direction, weather conditions and observations will be recorded and retained on the site.

5.2 Response to Dust Events

Where the level of dust observed during daily site inspections is considered high, the Site Manager will conduct an investigation to identify the cause of the dust emissions.

If the dust emissions are attributed to an activity on the site and mitigation measures have failed, the activities that are the source of the emissions will cease until remedial measures have been implemented. Visual monitoring will be increased as necessary along the site boundary until the dust problem is resolved.

Where dust emissions are continually identified as excessive on site or complaints are received repeatedly, the Site Manager will review the mitigation measures and monitoring strategy detailed in this Fugitive Emissions Management Plan to prevent emissions from being released from the site.

Due to the generally remote location of the site, the likelihood of dust and particulate emissions impacting sensitive receptors in close proximity to the site is considered low, therefore no additional forms of dust monitoring are proposed for this site.

5.3 Monitoring Records

Bryn shall keep records of site inspections. Any adverse operating conditions, non-conformances, complaints and mitigation/management failure resulting in an accident or non-compliance with the Permit shall be recorded in accordance with the operator's wider corrective/preventative actions procedure.

5.4 Complaints

All complaints received concerning fugitive emissions from the site will be dealt with in accordance with the company's environmental management system complaints procedure.

Bryn shall decide and implement any necessary action in response to any complaints or concerns expressed by interested parties, including operatives, customers, clients and regulatory authorities.

The operator shall record the:

- Name and contact details of the person who expressed concern or made a complaint;
- Specific subject(s) of the concern or complaint;
- The source / location of where the complaint comes from;

- Date and time communicated to the producer and name of the person to whom it was communicated;
- Nature and date(s) of any actions and checks and who carried them out;
- Nature and date of any response to the person who expressed a concern or made the complaint; and
- Name of the person who communicated the response.

The complaint form can be seen in Section 6 below.

Upon receipt of a complaint, Bryn will open an investigation immediately. This will involve an investigation into site operations at the time of the complaint, weather conditions at the time of the complaint and any other points of note such as off-site activities being undertaken at the time of the complaint. Where required, corrective actions will be taken to reduce/eliminate the release of emissions following the mitigation measures set out in Section 4 above. Where mitigation measures are unsuccessful, the site activities may be stopped on the instruction of the Site Manager until the wind direction changes or the cause of the release is identified and corrected. Each complaint will be treated in the same manner, on a case by case basis. Bryn will complete the complaint form within 48 hours of receipt of the complaint. The completed complaint form is stored in the site office.

The Environment Agency shall be informed of any emissions, not controlled by an emissions limit, which have caused, is currently causing or may cause significant pollution. Complaints received by the Environment agency relating to dust emissions from the site will be dealt with as soon as practicable upon notification.

5.5 Responsibility

The Site Manager is responsible for this Fugitive Emissions Management Plan and the procedures within it. Should the Site Manager be away from the site, responsibility will rest with the designated deputy.

6.0 ANNEX – COMPLAINTS FORM

Date:		Ref No.	
Name, address and phone number of complainant.			
Time and date of complaint.			
Date, time and duration of offending release.			
Weather conditions (e.g., dry, rain, fog, snow).			
Wind strength and direction (e.g. light, steady, strong, gusting).			
Complainant's description of dust: -Duration -Constant or intermittent			
Has complainant any other comments about the offending release?			
Any other previous known complaints relating to installation?			
Any other relevant information.			
Potential dust sources that could give rise to the complaint.			
Operating conditions at the time offending dust release occurred.			
Action taken			
Final outcome			
Form completed by (signed):		Date	