

Final v1

Powys County Council North Powys Bulking Facility



Environmental Permit Application

Pest Management Plan

Project code: 416.00798.00038

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Acknowledgements

The content of this Report has been based upon information provided by WRAP Cymru and Powys County Council.

1.0 Introduction

The Pest Management Plan (PMP) has been prepared to support the Environmental Permit (EP) application for Powys County Council's (PCC) North Powys Bulking Facility in Abermule, hereafter referred to as 'the Site'.

This PMP outlines the methods by which PCC will systematically assess, reduce and prevent a potential infestation of pests at the site during normal operation and during potential abnormal events.

1.1 Relevant Guidance

This PMP has been written in accordance with the following guidance:

- Technical Guidance Document: How to comply with your environmental permit, Version 8, October 2014;
- Control and monitoring emissions for your environmental permit, November 2018; and
- Fly management: how to comply with your environmental permit, Version 1, April 2013.

1.2 Pest Management Plan Structure

This PMP aims to cover the following 6 points:

- Training;
- Pest prevention methods;
- Monitoring;
- Pest control techniques;
- Trigger level for additional control measures to be required; and
- Review of the PMP.

1.3 Responsibility

The Site Supervisor is responsible for ensuring the PMP is kept up to date and implemented correctly on site. Any changes required are the responsibility of the Site Supervisor or other designated person to update and re-issue the amended plan.

2.0 Training

Nigel Hicks, the Waste & Recycling Manager (north) has achieved a COTC Level 4 Transfer and Treatment of Non-Hazardous Waste with WAMITAB.

The Waste & Recycling Manager will ensure that all relevant training is cascaded down to all other site supervisors and operatives via a Toolbox Talk. The training will include the following (list not exhaustive):

- Understanding the significance of pests on site;
- Basic identification of flies based on the information contained in Appendix 01;
- On-site inspection techniques;
- Where and how to record any findings;
- Who to report any significant findings to and by what means;
- Material rejection procedures; and
- Any relevant control techniques.

Toolbox talks are undertaken once per quarter and are provided to any new members of staff before they begin work on site

3.0 Material Types, Storage Time and Dimensions

Table 3-1
Material Types, Storage Time and Dimensions

Material Type	Max Storage Time	Length (m)	Width (m)	Height (m)	Max Volume (m ³)
Stored within the Bulking Facility building					
Bay 1: Absorbent Hygiene Products	Maximum of 1 week	4.5	2.5	2.0	22.5
Bay 2: Paper and Cardboard	4 days	7.34	9	3.0	191.5 ^[1]
Bay 3: Cans and Plastic (including composite packaging)	5 days	6.35	9	3.0	165.7 ^[1]
Bay 4: Cans and Plastic (including composite packaging)	5 days	6.35	9	3.0	165.7 ^[1]
Bay 5: Residual Waste including Street Cleaning Litter and Bulky Waste	4 days	8.15	9	3.0	207 ^[1]

[1] Maximum volume accounts for the slope of the stockpile and the freeboard space at the top and sides of each stockpile.

Material Type	Max Storage Time	Length (m)	Width (m)	Height (m)	Max Volume (m ³)
Bay 6: Food (stored in the bay or in skips)	24 hours*	3.75	7.5	3.0	84.4
Waste stored in designated containers within the Bulking Facility building					
Non-hazardous Batteries	3 months	1.3	1.3	1.0	1.69 ^[2]
WEEE	3 months	1.3	1.3	1.0	1.69 ^[2]
Textiles	7 days	1.2	1	0.76	0.912
Stored externally within designated bays					
Glass	4 days	10.53	11.77	2.0	182.6 ^[1]
Green Waste	4 days	7.77	7.9	3.0	184 ^[1]

* Storage of food waste for 24 hours within the food waste bay during the week, and up to 72 hours within the food waste skips over the weekend period.

[2] Maximum volume based on a 1,100 litre storage container.

[2] Maximum volume based on a 1,100 litre storage container.

4.0 Pest Prevention Methods

A risk assessment identifying the possible sources of pests, pathways and receptors has been undertaken and is presented in Table 4-1 below. The assessment details the preventative pest control measures implemented on site that aim to prevent or minimise the presence of pests.

Table 4-1: Pest Management Risk Assessment

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Pests						
Flies including: <ul style="list-style-type: none"> ■ Common Housefly; ■ Lesser Housefly; ■ Blow fly; and ■ Fruit fly. 	Potentially sensitive receptors including residential properties, commercial and industrial premises, ecological	Via air (flies, pigeons and seagulls) or over ground (rats).	<u>Low Potential to Attract Pests</u> The following material types are not considered to attract pests: <ul style="list-style-type: none"> ■ Paper and cardboard; ■ Textiles; ■ WEEE; and ■ Batteries. 	Low	Nuisance, loss of amenity and harm to human health.	Low

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What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Vermin including: <ul style="list-style-type: none"> ■ Rodents; ■ Pigeons; and ■ Seagulls. 	receptors and local cultural and heritage features.		<p>These material types do not contain any putrescible material.</p> <p>All materials are separated at the kerbside by trained operatives ensuring negligible levels of contamination and mixing of material types.</p> <p>Strict waste acceptance procedures will ensure that only authorised materials are accepted.</p> <p>Material storage times will be in accordance with Table 3-1 above.</p> <p>Control measures for these material types are not considered necessary.</p>			
			<p><u>Medium Potential to Attract Pests</u></p> <ul style="list-style-type: none"> ■ Cans and plastic (including composite packaging); ■ Glass; and ■ Green waste. 	Medium	Nuisance, loss of amenity and harm to human health.	Medium

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>The above material types are considered to have a medium risk of attracting pests due to the likelihood of a small proportion of putrescible material. Large quantities of food waste should not be present as this is collected separately. Therefore, the following control measures are implemented:</p> <ul style="list-style-type: none"> ■ Waste acceptance procedures will ensure that only authorised materials are accepted; ■ If a load arrives at the site emitting an unacceptable odour or has a fly infestation, it will be rejected, and logged in the site diary for future reference; ■ Material tipped on the floor will be kept to an operational minimum. Once tipped, material will be pushed up into the storage bays and the tipping areas will be swept daily and washed down weekly to leave a tidy working area at the end of the working day; 			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
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What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<ul style="list-style-type: none"> ■ A minimum amount of material will be allowed to remain within the facility at the end of each working day or over weekends; ■ Material storage times will be in accordance with Table 3-1 above; ■ All material will be stored within the building with the exception of green waste and glass which will be stored outside in a dedicated bay; ■ Good housekeeping practices will be in place including cleaning down, disinfecting and maintaining all site surfacing, site haul roads and drainage channels. Building floors are swept daily after loading up material and all bay floors and walls are cleaned/swept three times per week when bays are completely empty. The Site Supervisor will be responsible for ensuring good housekeeping practices are undertaken; 			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<ul style="list-style-type: none"> ■ Spillages and accumulations of material will be cleaned up as soon as possible, including difficult to reach areas, ensuring material does not accumulate in corners; ■ Checks will be carried out by site operatives, as part of the site's general housekeeping, to ensure that there is no old material stuck between building walls and bays or in corners. If material is identified it will be cleaned up as soon as possible; ■ The exterior of all waste collection lorries is washed weekly, and food pods on kerbside collection (recycling) vehicles are washed daily. Where necessary, remaining material is swept from the inside of pods. The back end of RCVs are washed down daily following the final tip; ■ As detailed in Sections 2 and 4, Site operatives will be trained in the identification of pests and 			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>will be vigilant and undertake a daily inspection for sightings of birds, rats and flies. The findings of the visual inspection will be recorded in the site diary;</p> <ul style="list-style-type: none"> ■ In the event that flies are identified at the site, the actions detailed in Table 4-2 will be considered and the appropriate course of action decided by the Site Supervisor; and ■ If rats or birds are identified on site, the actions detailed in Section 5 will be considered and the appropriate course of action decided by the Site Supervisor. 			
			<p><u>High Potential to Attract Pests</u></p> <p>The following material types are considered to have a high risk of attracting birds, rats and flies due to the proportion of putrescible material and moisture levels. Therefore, these material types have extra</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>control measures in addition to the measures listed above:</p> <ul style="list-style-type: none"> ■ Food Waste. <p>Storage of food waste for 24 hours within the food waste bay during the week, and up to 72 hours within the food waste skips over the weekend period. To minimise the potential for infestations, food waste will arrive on site in RRV pods/stillages or council vehicles and will be tipped directly into a designated food waste bay. During normal operating conditions food waste is collected from the site daily typically between 8am and 10am, with the haulage arranged to ensure that all material is cleared from the bay completely on each collection. This will allow the bay to be hosed down after each load is taken, during the off-peak period, before the next load is tipped in the afternoon. A full wash down and deep</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>clean of the food waste bay will be undertaken at least weekly during off-peak periods to minimise disruption to material deliveries.</p> <p>During peak periods, lorries tip their load directly into the bay and material is pushed to the back of the bay using the loading shovel.</p> <p>Peak hours are when vehicles are tipping collected material on site. This is usually between 12.30pm and 3.30pm. Off-peak hours relate to the times outside of these tipping hours, where lorries are not tipping into the bay.</p> <p>■ Absorbent Hygiene Products (AHPs).</p> <p>AHPs will be collected in bags, deposited within the dedicated bay and subsequently transferred into a dedicated sealed skip (hinged lid with rubber seals) at the end of each weekday. This is achieved through responsible management practices: the full-time site</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>operative responsible for yard duties will be responsible for ensuring that site operations are carried out in accordance with the EP. This member of staff will focus their time on operations within the building and will be responsible for ensuring that AHPs are transferred into the sealed skip (hinged with rubber seals) at the end of each weekday. AHPs will be transported off site for recycling within 7 days.</p> <ul style="list-style-type: none"> ■ Mixed Municipal Waste (Residual Waste including Street Cleaning Litter and Bulky Waste) <p>Street cleaning residues are combined with the mixed municipal waste (residual waste). Mixed municipal waste is not treated on site and remains within the dedicated storage bay, within the building, at all times. A minimum amount of mixed municipal waste will be allowed to remain within the facility at the end of each working day or over weekends and will be stored on site for a maximum of 4 days. Good</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			housekeeping practices will be in place. Spillages and accumulations of mixed municipal waste and street cleaning residues will be cleaned up as soon as possible, including difficult to reach area, ensuring material does not accumulate in corners.			

4.1 Repeat Problematic Loads

It is not possible to ensure that repeat problematic loads are not accepted for most waste streams because it is not possible to distinguish which households have deposited which wastes. However, it is possible to identify if trade customers have deposited problematic, non-household wastes because they are serviced as per contracts. Details of which businesses are serviced on which day are held on site. To ensure that repeat problematic loads are not accepted, the councils' trade waste team will liaise with customers regularly. They will call and/or visit customers if any problematic materials are identified within loads to ensure that this does not continue.

4.2 Periods of Warmer Weather

Infestations, even during warmer months, are very unlikely to occur. There is a very quick turnaround time with daily loads leaving the site, therefore material will not be sat for long enough to attract/cause fly infestations.

5.0 Monitoring

All pests usually have predictable behaviour patterns (food types, habitats, and breeding).

Typical species that could be present on site and will be inspected for are as follows.

Table 5-1: Typical Pest Species on Site

Pest	Possible Species
Fly	<ul style="list-style-type: none">■ Common Housefly■ Lesser Housefly;■ Blow Flies; and■ Fruit Flies.
Vermin	<ul style="list-style-type: none">■ Rodents;■ Pigeons; and■ Seagulls.

The occurrence of pests will be monitored, and findings recorded to enable the instigation of appropriate control measures. This will be carried out on a daily basis and will be carried out more than once per day if increased pest activity is noted.

5.1 Fly Monitoring

All site staff will be required to:

- Remain continuously vigilant for signs of maggots, crawling flies and airborne insects during material acceptance. Each load will be visually inspected when tipped for the signs of flies/maggots/larvae;
- Verbally report any sightings to the Site Supervisor; and
- Record any findings in the Site diary.

The site will benefit from adhesive fly boards on the site boundary and adhesive fly paper within the building to monitor fly numbers from the start of operations on site. The Site Supervisor, in conjunction with an external pest control contractor will determine the location of fly boards on the site boundary. The fly boards and adhesive fly paper will be inspected daily by the site supervisor (or suitably trained delegated persons) as part of the site's daily inspections. The adhesive fly paper in the building will be placed in locations where flies, maggots or crawling flies were seen during daily inspections. Site operatives will replace the fly paper and boards weekly and any flies will be identified and recorded in the site diary. Trigger levels are given in Table 4-2 below.

In addition, general observations will be made by the Site Supervisor (or suitably trained delegated persons) as part of the daily site inspections using the Daily Site Monitoring and Evaluation sheet (EMS.S8.05) found in Appendix 02. Each storage bay within the bulking shed and outside in the external yard area will be visually inspected.

The level of infestation is measured using the traffic light system methods documented in Table 4-2 below.

Table 5-2: Traffic Light System for Fly Monitoring

Classification	Assessment Criteria	Action to be Considered
Normal	No airborne flies, maggots or crawling flies noted during daily inspections 0-1 flies on sticky board (if applicable – may not be in place)	None required
Light	1 – 25 airborne flies within facility 1-50 maggots apparent within in coming load 1 – 25 crawling flies noted on material face 2-10 flies on sticky board	Adhesive fly boards are located on the site boundary and adhesive fly paper is located within the building. Monitor the adhesive fly paper/boards on a weekly basis. Keep roller shutter doors closed as much as operationally possible. Target specific material if identified as problem load with treatment (removal of fly infested material to the quarantine area for targeted use of insecticide). Fly infested material treated with insecticide will be containerised within the quarantine area. This will prevent other amenity issues such as odour. Material will be removed from the quarantine area by a specialist contractor as soon as possible, within a maximum of 48 hours. It will be transferred to Brecon WTS for sorting and baling. Monitor fly numbers. Site Supervisor to contact an external pest control contractor.
Medium	26 – 50 airborne flies within facility 51-100 maggots apparent within in coming load/ onsite material 26 – 50 crawling flies noted on material face 11-25 flies on sticky board	Adhesive fly boards are located on the site boundary and adhesive fly paper is located within the building. Monitor the adhesive fly paper/boards on a daily basis. Keep roller shutter doors closed as much as operationally possible. Target specific material if identified as problem load with treatment (removal of fly infested material to the quarantine area for targeted use of insecticide). Fly infested material treated with insecticide will be containerised within the quarantine area. This will prevent other amenity issues such as odour. Material will be removed from the quarantine area by a specialist contractor as soon as possible, within a maximum of 48 hours. It will be transferred to Brecon WTS for sorting and baling. Remove material from site as soon as possible, at the latest within 48 hours. Material will be removed to

		Brecon WTS by the appropriate contractor for that type of material as detailed in the Operating Techniques. Monitor fly numbers. Site Supervisor to contact an external pest control contractor.
Heavy	>50 airborne flies within facility Flies within the yard >100 maggots apparent in material >50 crawling flies noted on material face >26 flies on sticky board	Adhesive fly boards are located on the site boundary and adhesive fly paper is located within the building. Monitor the adhesive fly paper/boards on a daily basis. Keep roller shutter doors closed as much as operationally possible. Cease taking material. Remove material from site Full clean down of transfer station Monitor fly numbers Site Supervisor to contact an external pest control contractor.

EMS.S8.05 will be used in conjunction with this PMP to record whether fly numbers are considered compliant (fall within the normal classification in Table 4-2 above). Any findings outside the normal classification will be recorded on EMS.S8.05 which is reviewed by the Site Supervisor daily.

The results of the inspections will be held on site for review and audit purposes and will be made available to Natural Resources Wales (NRW) on request.

Waste will be checked on site for fly larvae before it is transported off site. When kerbside collection (recycling) vehicles tip material on site, the site foreman will check the load for contamination. At this point the site foreman will check for fly larvae among a smaller load of material. Any identification of fly larvae will be reported to the site supervisor to be containerised in the quarantine area and sprayed if necessary.

5.2 Vermin Monitoring

All site staff will be required to:

- Remain continuously vigilant for signs of rats, pigeons or seagulls anywhere on site;
- Verbally report any sightings to the Site Supervisor; and
- Record any findings in the site diary.

During daily site inspections made by the Site Supervisor (or suitably trained delegated persons) using EMS.S8.05, any sightings of rats, pigeons or seagulls within the building or external area of the site will be recorded. Control techniques for any vermin monitored on site are detailed in Section 5 below.

6.0 Pest Control Techniques

6.1 Fly Control Techniques

Table 4-2 above details the different control techniques that will be considered depending on the severity of the infestation. Techniques could be deployed in-situ to a large-scale fly problem or targeted to small proportions of material if it can be removed from the wider pile and isolated within the quarantine area. The table describes the different thresholds that would trigger additional control techniques that will need to be implemented.

The Site Supervisor will make contact with an external pest control contractor who will determine the most appropriate course of action. Likely pest control techniques will include the following (list not exhaustive):

- 'Paint on' insecticide formula;
- Insecticide space treatment (fogging spray); and
- Ultra Low Volume System (ULV).

Any use of insecticides will be undertaken by the trained external pest control contractor. Insecticide use will be agreed with NRW, prior to being carried out and all suitable controls will be in place. All relevant Health and Safety Executive (HSE) approvals and assessments will be undertaken.

As checks and monitoring of pests is undertaken daily and any control measures required will be implemented within the same day. This is achieved through responsible management practices with the site supervisor responsible for ensuring that any fly control measures are implemented within the same day.

6.2 Rodent Control Techniques

Rodent control will be achieved via the use of approved rodenticides deployed in bait boxes. All use of rodenticides will be undertaken in line with the following guidance:

- Campaign for Responsible Rodenticide Use (CRRU) UK Code of Practice: Best Practice and Guidance for Rodent Control and the Safe Use of Rodenticides – March 2015; and
- CRRU Guidance: Permanent Baiting – July 2019.

Permanent baiting site locations will be identified; however, these will not contain active rodenticides unless it can be demonstrated that there is an ongoing rodent related problem. A pest control company will re-bait the boxes monthly and monitor for signs of activity. This will allow an ongoing rodent related problem to be identified. If this is established, active rodenticide will be used until the issue is resolved. Checks of the bait boxes by the Site Supervisor will be undertaken bi-monthly.

6.3 Bird Control Techniques

The likelihood of an infestation of pigeons or seagulls is considered to be extremely low as the building doors remain closed outside of operational hours and there is a constant human presence on site during operational hours.

Techniques for bird abatement that could be considered by a suitably qualified individual are:

- Pre-recorded bird distress calls;
- Bird kites which mimic birds of prey;
- Helium balloons;
- Birds of prey; and
- Scarecrows.

Selection of the most appropriate technique(s) are dependent upon a number of factors e.g. preference will be given to passive techniques to minimise disturbance to neighbours. Consideration will be given to the presence of protected bird species in the vicinity of the facility, prior to utilising falconry/birds of prey. Techniques can also be rendered ineffective due to habituation and therefore a combination of different techniques will be used to ensure their individual effectiveness.

7.0 Trigger Levels and Complaints

7.1 Fly Monitoring Trigger Levels

Trigger levels for control levels are detailed in Table 4-2 above.

7.2 Vermin Monitoring Trigger Levels

If any rats, pigeons or seagulls are observed within the bulking shed or the external yard area, the Site supervisor will immediately assess whether a specialist pest control contractor should be called.

7.3 Complaints

Any complaints related to pests will be handled in accordance with the Complaints Procedure (EMS.S2.06) included as Appendix 03 and recorded on the Complaints Record Form (EMS.S2.07) included as Appendix 04.

7.3.1 Complaints Regarding Flies

In step 5 of the Complaints Procedure it is necessary to determine that the facility is the source of flies at the complainant's address. To do this, the following will be investigated.

- The species of the fly found at the complainants address to determine if it is the same as any flies found on site;
- Whether there is evidence of breeding of the same species of fly at the facility;
- If there are any other significant sources of the same species of fly near to the site; and
- If changes in fly numbers at the site (for example due to a particular load of material being delivered) are mirrored at the complainant's address.

Step 5 of the Complaints Procedure also requires the source of the complaint to be investigated if it is attributed to the facility. The following measures will be used to investigate the complaint.

- Check the site for the presence of adult flies and take dated photographs of any key issues seen;
- Examine the material for fly larvae;
- Check any sticky boards for number and species of fly; and
- Check that there is no old material stuck between building walls and bays or in corners.

8.0 Review of the Pest Management Plan

This PMP sets out the appropriate measures PCC will undertake in order to maintain good housekeeping practices with the aim of minimising the risk of pests from the operations. A review will be carried out to ensure the plan remains suitable and sufficient to meet the needs of the facility.

The review will be carried out on an annual basis or because of any of the following activities (list not exhaustive):

- The issue of an EP variation by the NRW;
- A material change to the operational process;
- A substantiated complaint; or
- Any changes in legislation or guidance documents applicable to the pest management at the facility.

Following such a review should the document be updated, a revised draft of the plan will be submitted to NRW for discussion, consideration and approval.

Appendix 01: Pictures and Description of Common Fly Types

(Taken from: Fly management: how to comply with your environmental permit, Version 1, April 2013)

Common Housefly
(*Musca domestica*)



Lesser Housefly
(*Fannia canicularis*)



Stable fly
(*Stomoxys calcitrans*)



Black dump fly
(*Hydrotaea aenescens*)



Cluster fly
(*Pollenia rudis*)



Blowflies:

Blue bottle
(*Calliphora sp.*)



Green bottle
(*Lucilia sp.*)





Larvae of common housefly in wet manure (larvae of blowflies appear similar) (Copyright C. Boase)



Pupae of common housefly in dry manure (pupae of blowflies appear similar) (Copyright C. Boase)



Pupae of lesser housefly (larvae appear similar) (Copyright C. Boase)

Stage	Feature	Common housefly (<i>Musca domestica</i>)	Lesser housefly (<i>Fannia canicularis</i>)
Adult	Size:	Typically 6-7mm long, but does vary.	Typically 4-6 mm long, but does vary.
	Pattern on dorsal surface of thorax:	Four distinct longitudinal dark lines.	Three indistinct longitudinal dark lines.
	Abdomen colour:	Yellow-ish at basal end.	Often yellow-ish along sides.
	Wing venation:	Fourth longitudinal vein bends forwards (see below).	Fourth longitudinal vein straight (see below).
	Position of wings when at rest:	Projecting out from the sides of the abdomen, giving a delta-shaped outline.	Folded one over the other, directly over the abdomen, giving a more parallel sided outline.
	Adult resting behaviour	Typically resting in numbers on a range of surfaces within the building, e.g. walls, posts, ceiling etc. Sometimes in large clusters in preferred places.	Even when abundant, tends not to rest in numbers on walls or ceilings. More often resting on the manure, or on surfaces very close to the manure.
	Flight behaviour at source:	Flies very readily and in numbers. Often alighting on or colliding with people within the building.	Even within poultry sheds, the numbers of flies on the wing is low. Males flight is typically jerky circling high up within the building. Very seldom alighting on people.
	Flight behaviour at complainants' premises:	CHF will continually alight on work surfaces, food, walls, cupboards and people.	LHF normally flies in jerky circles within the room, often high up and around hanging objects occasionally alighting on light shades or pelmets etc. It seldom alights on people or food.
Larva	Appearance:	White-ish, smooth, maggot appearance. Active wriggling behaviour, often in clumps, just beneath manure surface. Normally in wetter manure. Easy to see when manure disturbed.	Dull grey-brown, spiky exterior. Inactive, and seldom clumped. Normally in wetter manure. Needs careful and close examination of the manure to find them.
Pupa	Appearance:	Smooth, barrel shaped, from tan, through chestnut-brown to almost black in colour, depending on maturity. Normally in drier manure. Easy to find. (See below)	Dull grey-brown, spiky exterior. Normally in drier manure. Needs careful and close examination of the manure to find them. (See below)
Issue		Common housefly (<i>Musca domestica</i>)	Lesser housefly (<i>Fannia canicularis</i>)

Overwintering behaviour	<p>This species cannot hibernate. It can only overwinter in warm locations, e.g. in pig farrowing units, or intensive poultry layer sites, where it continues breeding.</p> <p>Flies at cooler sites, e.g. free-range poultry units, will die out each winter, and so have to be re-colonised each spring, hence CHF problems in such sites, if they occur, are often later in the summer.</p>	<p>At the onset of winter, LHF will hibernate at the pupal stage, within the manure. These pupae will hatch the following spring, with the onset of warmer weather. Manure removal in the winter will take out most of the infestation.</p>
Dispersal behaviour	<p>Some adult flies will leave the source and may cause nuisance in buildings up to two or more km away. Dispersing flies are not obvious in intervening areas.</p>	<p>Some adult flies will leave the source and may cause nuisance in buildings up to two or more km away. Dispersing flies are not obvious in intervening areas.</p>
Typical breeding sites	<ul style="list-style-type: none"> - Intensive poultry layer units. - Free-range poultry layer units (less commonly). - Pig units. - Waste bins. - Waste transfer stations. - Landfill sites. 	<ul style="list-style-type: none"> - Free-range poultry layer units. - Waste bins. - Waste transfer stations. - Landfill sites.

Appendix 02: Daily Site Monitoring and Evaluation sheet (U41EMS.S8.05)

Daily Site Monitoring and Environmental Log for the North Powys Bulking Facility

Date: _____

Assessor: _____

Inspection Areas	Compliant		Comments
	Yes	No	
Waste piles and operational areas			
Only permitted wastes accepted			
Waste bays/ containers are filled to permitted levels			
Surface drainage- integrity of drains			
Sign of fire (smouldering waste/ smoke/ heat released)			
Fire Extinguishers- in place			
Odour emissions			
Dust emissions (if present see Appendix AQ2 of DEMP)			
Site floor swept (daily)			
Weekly washdown of operational areas (as per OMP)			
Vermin/Birds			
Yard and drainage			
General waste tipping/collection operations			
General site tidiness/ litter			
Vermin/Birds			

Lighting			
Safety Notices			
Availability of site machinery/operatives			
Use and availability of PPE			
PPE provision			
Weighbridge facilities			
Weighbridge maintenance records			
First Aid boxes			
Accident book review			
Surface drainage			
Chemicals/oils stored on site- integrity and bunding			
Spill kits			
Surface drainage- integrity of drains			
Interceptor- integrity			
Flood defence features- integrity			
Weekly washdown of operational areas (as per OMP)			
Internal roads- integrity of surfacing/ potholes/ mud/litter			
Wider site			
Access road- integrity of surfacing/ potholes/ mud/litter			
Site Signage- clearly visible			
Site Gates/Barriers- integrity and damage			

Safety Notices			
Boundary Fencing- integrity and damage			
Site Main Identity Board-clearly visible/ no damage			
Visitors on site (signed in and are accompanied)			
Complaints			
Regulatory communications			
Odours (sniff test to be carried out as per OMP Appendix AQ2)			
Dust emission (Appendix AQ2 if needed)			
Noise levels			
Fire Prevention specific checks			
No signs of fire in combustible waste piles (<i>e.g. burning/ visibly hot/ smouldering/ producing steam or heat</i>).			
<i>If sign of fire is detected contact site manager immediately!</i>			
Visible signs of contamination in combustible waste piles (<i>e.g. batteries; oil containers; lighters; etc.</i>)			
Waste is contained within designated storage bays/			

containers and are within permitted limits <i>Waste cannot overflow the lines painted in the bays or the storage containers.</i>			
Heat/smoke detectors in welfare building are in working order			
Heat/smoke detectors in office are in working order			
Escape routes and fire exits are unobstructed			
Manual fire alarm call points are unobstructed			
Foam, carbon dioxide and powder extinguishers are available and unobstructed			
Combustible waste hasn't been stored onsite for more than 5 days			
Fire extinguishers are fitted on all mobile plant			
No naked lights/ smoking onsite			
No hot exhausts before site shuts down. <i>Prior to closing the site at the end of the day vehicles are given time to cool down (1hr after switch-off).</i>			

Mobile plant and vehicles are parked a minimum of 6m away from material storage			
No hot works has been carried out 1 hr before site closure			
Rollershutter doors are in working order			
Automated penstock system is in working order			
The Fire Prevention and Mitigation Plan is in the secure container on the exterior wall of the site and unobstructed			

Appendix 03: Complaints Procedure (EMS.S2.06)

1.0 PRINCIPLE

This section outlines the procedure upon receiving a complaint regarding the North Powys Bulking Facility. The purpose of this written procedure is to ensure that all site operatives working on site are aware of the procedures for the correct recording of a complaint.

2.0 RESPONSIBILITY

All site operatives are responsible for carrying out the procedure as detailed in Section 0. Any changes to the procedure required are the responsibility of the Site Manager to update and re-issue the amended procedure.

3.0 COMPLAINTS RECORD

In the event of a complaint being received by a site operative, the following steps will be taken and details recorded on the Complaints Record Form EMS.S2.07. The complaint will also be recorded in the Site Diary, kept in the Site office:

1. Details of the complainant (including; name, address and a telephone number) if provided;
2. Record of the date and time that the complaint was made and when the incident related to;
3. Record details of the nature of complaint;
4. Was anyone else on site or other stakeholders aware of the issue and if so, who?
5. Establish whether the complaint issue relates to the site, and if so investigate the source of the problem. Contact the Site Manager.
6. If verified, the Site Manager will be informed and they will record how the site has implemented methods to ensure the issue will not cause a complaint in the future.
7. The Site Manager to make a record of any signs of pollution. If the complaint (such as emissions to groundwater or a local watercourse) is significant, the Environment Agency will need to be contacted on 0800 807060 as soon as possible. The severity of the incident will be determined by the Site Manager.
8. If required, the Site Manager will send an email to the local NRW office.
9. All Complaint Record forms must be signed and dated.

Any actions taken in response to the complaint will be recorded on the Complaints Record form and the site diary.

The records of any complaints received will be reviewed at future site audits to ensure that similar complaints are avoided in the future.

END OF DOCUMENT

Appendix 04: Complaints Record Form (EMS.S2.07)

Complainant Details Name:	
Address: (State if source is anonymous)	
Phone No:	
Date and time they made the complaint	
Date and time the complaint relates to	
What happened, what was the nature of the complaint?	
Was anyone else aware of this – other neighbours or your staff? If so who?	
Assuming the complaint relates to your site, you should contact the Site Manager and they should find the source of the problem and record what went wrong to cause the incident.	
What have you done to make sure that it does not happen again?	
Was there any significant pollution – for example: excessive odour which could be detected off site or spillage onto the ground into a drain or a watercourse? If so NRW must be informed on 0300 065 3000 as soon as possible.	Yes/No/not applicable At what time did you phone? NRW incident number:
You must also write or send an email to confirm this to the local office (see your accident management plan for the address). Have you done so?	Yes/No/not applicable Time: Date:
Please print your name and sign:	

END OF DOCUMENT

www.wrapcymru.org.uk/CCP

