

Odour Management Plan

At

Much Fawley Farm, Fawley, Herefordshire HR1 4SP



Prepared by

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Record of Changes

<i>Version</i>	<i>Date</i>	<i>Change</i>
1 Version 6	September 2011	Initial version
2	November 2011	Revised for EA
3	December 2011	Revised for EA
4	December 2011	Revised for EA
5	December 2011	Revised for EA
6 Version 7	October 2016	Revised Post Reg 36 and 60 notice
7 Version 8	April 2021	Feedstock Changes.
8	April 2021	Feedstock acceptance texts changes.
9	April 2021	Digestate storage volumes adjust.
10	April 2021	Potential releases updated.
11	April 2021	Pathways and receptors update.
12	April 2021	Feedstock Odour Assessment
13	April 2021	Permitted Wastes Updated
14	April 2021	Odour Monitoring Points added
15	April 2021	Solid Feedstock reception procedures
16		
17		
18		

Much Fawley Farm - Odour Management Plan

Introduction

This Plan has been prepared as part of the Environment Agency permit application because there are sensitive receptors (neighbouring dwelling houses) within 75 metres of the installation.

The purpose of this Plan is to: -

- Establish the likely sources of odour arising from the anaerobic digestion process during non-emergency conditions, their release points and pathways to nearby receptors.
- Set out the procedures followed at Much Fawley Farm in order to prevent or minimise odour levels.
- Formalise the procedures for monitoring of odours and dealing with any odour complaints.

Pages 5 to 14 of this document sets out the likely sources of odour and the procedures followed to minimise odour levels.

Typical Odour Sources and Actions Taken to Minimise Odours

Source Materials

The wastes listed in Appendix D are acceptable under the EA Permit for this installation.

Based on current feedstock availability the plant will regularly consume the following annual quantities of feedstock:

Feedstock	Qty (Tn/yr)	Waste Code	Max Storage Time
Liquid / Slurries			
n/a	n/a	n/a	n/a
Solids			
Broiler Manure	3000	02 01 06	6 Weeks
Maize Silage	2200	n/a	10 Months
Winter Rye	1000	n/a	10 Months
Distillery Mash	500	02 07 01 or 02 07 02	3 Months
Ryegrass Silage	1000	n/a	10 Months
Fruit	500	02 03 04	Delivered as needed. Temporary storage within bund area for 24 hours if low odour and delivery issues.

Beyond this, the plant may have a number of opportunity feedstocks which will be of various quantities. This odour plan will need to be updated when feedstock options change.

These are anticipated to come in a number of forms as listed in Appendix D

Liquid and sludge feedstocks (listed as Group 2 in Appendix D) will be delivered by road going sealed tanker for delivery directly into the slurry storage tank, or in very rare occasions (when delivery errors may have occurred) for the material to remain in the slurry storage tank till the following day. These feedstocks will at no time be exposed to atmosphere and so should present no source of odour. If tank filling of very odorous material is likely to occur then these loads will not be accepted

Solid feedstocks (listed as Group 1 in Appendix D) will require pre-assessment prior to acceptance on site and prior to tipping.

If the potential feedstock is inert, non-odorous and not expected to biodegrade prior to its use then it can be stored in the clamps. If an individual batch has significant odour then this individual batch can be sheeted to reduce impact on nearby sensitive receptors. The broiler manure does not generally cause odours so is not currently sheeted during its use from the clamp.

If the potential feedstock is slightly odorous then the material should be stored in the clamp nearest to the digester where Broiler Manure is to be stored and fed into the plant as soon as possible.

If the potential feedstock is significantly odorous it should be immediately input into the digester upon arrival, or not be accepted onto the site. Completing Appendix E for the records.

Materials received on site are usually supplied as they are used and so no degradation on site is experienced.

With all Group 1 feedstocks, prior to acceptance on site, it will be ensured that there is sufficient capacity in the appropriate storage area to receive the waste. They are either supplied in bins which are added directly to the diet feeder or supplied on an as needed basis. Receipt of further solids is done on either an as needed basis or suppliers agrees with the site permit holder prior to delivery that space exists in the solids clamp immediately adjacent to the diet feeder. If no capacity exists, the waste is not received.

Furthermore, annually the installation will produce approximately the following:

Waste	Qty (Tn/yr)	Waste Code	Max Storage Time
Liquids			
Digestate	12023 tns	19 06 06	3 Months
Gas			
Biogas	1.5 million m3	19 06 99	< 1 day

- 1567 m3 of digestate will be contained in the digester.
- Between 850 and 1700 m3 of digestate will be held in the secondary digester/digestate store.
- The new pit will hold 1572 m3 excluding freeboard. Currently subject to a Schedule 5 Notification awaiting permit variation.
- The above ground store will hold 1000 m3 excluding freeboard. Not currently being used as awaiting planning consent.
- Dirty water tank (If needed) 60 m3
- Collection Pit 1 (if needed) 60 m3
- Collection Pit 2 (if needed) 60 m3

The feedstocks below will be assessed for odours and Appendix E completed if required. The Broiler Manures usually do not generate odours and the distillery mash and fruit are received on an as needed basis and so no degradation on site is experienced.

Feedstock	Assesement	Waste Code	Max Storage Time
Liquid / Slurries			
Solids			
Broiler Manure	No	02 01 06	6 Weeks
Distillery Mash	Yes if needed	02 07 01 or 02 07 02	3 Months
Fruit	Yes if needed	02 03 04	Delivered as needed. Temporary storage within bunded area for 24 hours if low odour and delivery issues.

Feedstock Storage

Broiler Manure is received onto the site and stored adjacent to the diet feeder. This is a sheltered location and restricts odour generation from the site.

Maize Silage, Rye Silage and Grass silage are stored in the clamps included within the permitted area of the site.

Fruit is received in bins on an as needed basis and fed directly into the diet feeder.

Distillery Mash is received as a liquid or sludge and enters the plant directly into the slurry intake pit.

Potential Releases

Below is an assessment of the processes of the potential sources that could cause odour and should be read in conjunction with the contents Site Risk Register and Accident Management Plan.

Odour Related Issue	Potential Risks and Problems	Actions taken to minimise odour and odour risks at Much Fawley Farm
Acceptance of Waste	Odours from waste feedstock as it is delivered to the site	<p>The wastes listed in Appendix D are acceptable under the EA Permit for the site</p> <p>Group 1 wastes are solid in nature. All solid feedstocks will be assessed prior to delivery to check the level of odours being released and/or their degradation when exposed to air is stored for longer than a day. If loads are deemed too odorous to receive on site even if applied directly into the digester then they will be rejected by completing Appendix E and returned to the supplier. The supplier will be contacted to discuss how this can be prevented in the future. These load rejection records will be stored in the Management System Odour Management Section.</p> <p>Solid wastes shall be delivered in covered lorries / tractors to ensure that the load is secure.</p> <p>If the potential feedstock is inert, non-odorous and not expected to biodegrade prior to its use in the process, then it can be stored in the clamps.</p> <p>If the potential feedstock is slightly odorous but acceptable to be received, then the material should be stored in the clamp nearest to the digester and sheeted.</p> <p>If the potential feedstock is significantly odorous it should be immediately put into the digester upon arrival, or not accepted onto the site.</p> <p>In all cases, prior to acceptance on site, it should be ensured that there is sufficient capacity in the appropriate storage area to receive the waste. Waste is only usually received on an as needed basis. If otherwise storage in clamp next to diet feeder is assessed prior to delivery.</p> <p>Whilst materials are being delivered and placed in storage clamp, they shall be</p>

		<p>quickly tipped and compacted as necessary to reduce the overall contact with the air.</p> <p>As soon as the material has been placed, if the clamp contains a potentially odorous feedstock (or one likely to degrade if left exposed, or likely to attract pests or vermin), it shall be sheeted with an airtight membrane to stop the release of any odours from the feedstock, and to discourage pests or rejected, and not received on site.</p> <p>Particular attention should be given to those wastes containing animal faeces/manures (EWC code 02 01 06 & 20 02 01), and those which are likely to start to decompose, as these will be susceptible to the production of odours.</p> <p>Group 2 wastes are either slurries and/or liquids.</p> <p>For externally sourced slurries and liquid feedstocks, these will be delivered to site in tankers and as such will be air tight. Small quantities shall be discharged by pipework directly into the slurry storage tank.</p> <p>Every effort should be made when connecting/disconnecting pipework to the storage to ensure that there are the minimum of spills and the results of this are cleared as soon as possible.</p>
Storage of Feedstock	<p>Odours from Group 1 Feedstock being stored in clamp</p> <p>Odours from Group 2 Feedstock being stored in Slurry Storage Tank</p>	<p>If of an odorous nature, whilst the feedstock is being stored in the clamps it shall always remain sheeted, in order to retain any odours, discourage pests and to maintain the quality of the feedstock. Feedstock to be assessed on entry to site. Complete Appendix E if loads have an odour issue. Receive and sheet if feedstock odour issues can be managed below acceptable levels by sheeting or placing in tank immediately. Otherwise reject load from the site using Appendix E.</p> <p>Currently the broiler litter stored does not generate significant odours and so does not require sheeting.</p> <p>Group 2 feedstocks are supplied as needed and otherwise stored in the slurry storage tank and as such are not exposed to the outside elements. They should not therefore</p>

		pose an odour issue.
Transport of feedstock from the point of storage to the digester.	<p>Odours from Group 1 Feedstock being removed from Clamp and handling arrangements.</p> <p>Odours from Group 2 Feedstock being transferred to the digester</p>	<p>Prior to the movement of any feedstock from the clamps to the digester is undertaken, the direction of the wind should be considered. If the intended feedstock is of an odorous nature then the clamps should not be opened up or feedstock moved, if in doing so the odours would cause a nuisance to the local receptors. (ie wind direction from NNW through E to SE)</p> <p>When potentially odorous feedstock is being removed from the clamp, the open face shall be kept to a minimum. Material shall be transferred to the digester as efficiently as possible to reduce spillage. Any spilt feedstock shall be cleaned up as soon practical and no later than the end of the feeding process.</p> <p>Should the open face of the feedstock be odorous then it should be sealed when feedstock removal is not being undertaken.</p> <p>Group 2 feedstocks will be pumped from the slurry storage pit to the digester. This will be a completely sealed operation and so there will be no odours. As part of the maintenance regime the above ground pipework will be periodically checked to confirm its integrity.</p> <p>Any liquid feedstock will be pumped from the slurry storage tank in a controlled manner and will be undertaken by sealed pipes to a level below that of the existing liquid. This will be an odour free operation.</p> <p>The glycerol will be pumped directly from the IBC container to the digester. This is an odourless substance and so will not create any odour risks. (Not currently being used.)</p>
Digestion of Waste and gas storage	Odour from Digesters during maintenance periods	<p>Under normal operating conditions the digesters and Biogas Storage Holder are sealed systems and so should not emit any gas, odorous or otherwise.</p> <p>During maintenance (1 in 5 year event) it may be necessary to enter the digester. In order to safely do this, it will need to be ventilated with fresh air. Prior to undertaking this activity a weather forecast should be consulted in order to check that the wind for the duration of the venting activity will be</p>

	<p>Routine maintenance checks</p>	<p>coming from a westerly direction, such that it will carry any odours away from neighbouring properties.</p> <p>Should the wind direction change and be such that receptors are downwind of the facility then the venting operation should cease.</p> <p>As part of the Operation and Maintenance regime of the facility (as detailed in the equipment Operation and Maintenance Manual), at least once a day a complete walk round is undertaken to ensure that all tanks, pipework, valves etc are in a serviceable, undamaged state.</p> <p>Should any damage be identified which could be the source of any odorous emissions, then repairs should be undertaken immediately. If any releases cannot be stopped, then the process of shutting down the plant should commence until such repairs can be undertaken.</p>
<p>Burning of Biogas to produce Electricity</p>	<p>Odours from the exhaust stacks of the CHP and emergency CHP</p> <p>Planned CHP shutdown and release of odours via flare</p>	<p>The CHP exhaust stack has been built that it ventilates at a height of 8m. CHP2 stack height exceeds 3 metres as required by the environmental permit. This together with the direction of the prevailing wind, and the effect of the CHP burning off the most odorous substances, should mean that neighbouring properties will not be affected by odours from either CHP.</p> <p>As part of the CHP maintenance regime it is occasionally necessary to shut down the CHP. Under normal circumstances the CHP2 would be used to burn biogas produced by the digesters.</p> <p>For planned site maintenance the first activity would be to reduce the biological process. Whilst continuing to operate the CHP this would reduce the volume of biogas stored in both the digesters and the biogas holder.</p> <p>Based upon the biogas capacity of the digesters and the biogas holder, and the reduced production of the digestion process, when sufficient free space is available to cover the CHP shutdown period, the CHP can be stopped or the CHP2 used.</p> <p>Should the maintenance proceed as</p>

		<p>planned, there will be no release of biogas whilst the CHP is stopped.</p> <p>Should the CHP not be restarted by the time that the safe capacity of the digesters and biogas has been reached then the safe pressure will be maintained by the use of the hot water boiler. This will burn the excess biogas in such a way that the odorous emissions will be no worse than those experienced from the CHP exhaust.</p>
Storage of digestate	Odours from the stored digestate	<p>The system is operated with a primary digester and a secondary digester and a digestate storage lagoon and above ground store.</p> <p>Unseparated digestate is stored in the lagoon. A natural crust is produced and this prevents odours forming above the store. No separated solid digestate is produced or stored on site so does not generate any odour issues. This liquid digestate store is in the process of being covered to further reduce odours.</p> <p>A downpipe has been fitted into the lagoon so the digestate does not drop from significant height into the lagoon but is fed directly into (or as near to) the digestate level in the tank.</p> <p>When both environmental and legal conditions permit (NVZ rules etc), these stores are emptied, and the contents are spread to land.</p> <p>Removing digestate from the tanks should be carried out only when prevailing winds are away from the sensitive receptors – both at the tanks site and during the field application of the same.</p> <p>When conditions are right solid digestate is removed from the store and taken directly to fields for temporary storage and spreading.</p> <p>The lagoon has a maximum capacity of 1572 m³ and the Above Ground Store 1000 m³. Likewise the above ground store is awaiting being cover to further reduce odours.</p> <p>Because the digestate has been expended all of its biogas, and has been separated, its odour is significantly reduced.</p>

<p>Emergency Operation</p>	<p>Release of Odours from Flare / Boiler</p>	<p>Under normal operating conditions the pressure relief valve will remain closed. The plant should be operated in a fashion such that all biogas is consumed by the CHP or CHP2 to generate electricity. The first level of emergency, or any pressure build-up is vented via the emergency flare / boiler and the odorous materials are burnt off before venting to atmosphere. This is automatically operated when the gas pressure within the digester reaches a pre-defined level, which will also activate an alarm. Nigel Green or the site operator (Management System (Table 3.1 Individuals responsibilities) also has a remote alarm in his residence and Nigel Green or the site operator would attend site in less than 10 minutes of the alarm being activated. As part of the planned shutdown, gas production and the gas holder pressure would be reduced beforehand to increase the margin. The boiler is checked as part of the planned maintenance schedules see Appendix B.</p> <p>The Emergency Flare / boiler will burn the excess biogas in such a way that the odorous emissions will be no worse than those experienced from the CHP exhaust.</p>
	<p>Release of odours from Pressure release valve</p>	<p>Under normal operating conditions the pressure relief valve will remain closed. The plant should be operated in a fashion such that all biogas is consumed by the CHP or CHP2 to generate electricity. The first level of emergency, any pressure build-up is vented via the emergency flare and the odorous materials are burnt off before venting to atmosphere. As part of the planned shutdown, gas production and the gas holder pressure would be reduced beforehand to increase the margin.</p> <p>Should a situation occur which will results in the release of biogas via the pressure relief valve (which will operate automatically and initiate an alarm. The operator also has remote alarm in his residence and would expect to attend site in less than 10 minutes of the alarm being activated.), then the emergency plan Appendix C should be followed.</p> <p>Because release through the PRV is the release of raw biogas, the situation should</p>

		be remedied immediately to terminate the release. All activities except for those to ensure the safety of the plant should be directed towards reducing gas pressure via the CHP or CHP2 and/or Flare in order to close off the PRV.
	Release of odours by Biogas Storage Holder	The Biogas holder, like the digester is a sealed system which will vent via the pressure relief valve if necessary. The only time the Biogas Storage Holder would directly vent would be if the Holder suffered catastrophic failure. If this should occur then the Emergency Plan on Page 21 of this Odour Plan should be followed.

Pathways & Receptors

Sensitive receptors have been identified near to the site as follows:

Neighbouring Properties

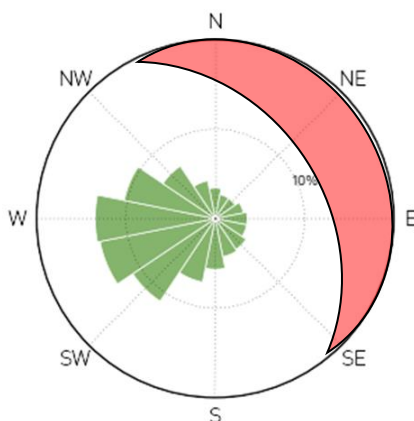
Property	Direction	Distance
Fawley Court Farm Office	NW	1400m
Fawley Cross Cottage	NNW	700m
Fawley Chapel	SSW	165m
Greystones	NW	1400m
Leybourne House	W	120
Much Fawley Farm	SSE	180
Seabournes	SSE	180
The Lodge	SSW	75
Tremelza	SSW	75
Wyche Cottage	NNE	740
Wye Cottage	SSW	290
Strangford View	SW	140

The neighbouring property receptors, which are mostly residential, are in an arc between North West and South South East from the site.

Nature Conservation Areas

The River Wye is a Special Area of Conservation as well as a Site of Special Scientific Interest. This is 200m to the SSE of the site. The site is also within the Wye Valley Area of Outstanding Natural Beauty.

The wind Rose below shows the direction of the prevailing wind for the UK. The red crescent shows the area from which direction the wind would most likely transport an odour issue to nearby receptors.



Considering the locality of the receptors above, dispersion of odours will only occur towards them when the wind is from the South East through East to North North West. Therefore the prevailing wind will ensure that for the majority of the time no odours will reach the receptors. However, when the wind is such that odours may disperse from the site towards the receptors, every effort should be made to minimise activities that may generate such odours.

Other pathways to consider:

Within 250 metres to the north - poultry site.

992 metres to the south east is another poultry unit with limited landscape features for odour dispersion in between.

1300 metres to the east is a dairy unit with limited landscape and limited dispersion features in between.

All these units will produce significant volumes of manures, broiler manure and slurry. They would be the sources of odour especially within periods of removing this material from within sheds and storing in fields heaps prior to spreading or during land application or immediately following land application.

Calm and low wind speeds tend to be worst-case conditions for dispersion of odour, particularly when there are large area sources. Particular care should be taken during these types of conditions.

Odour Monitoring

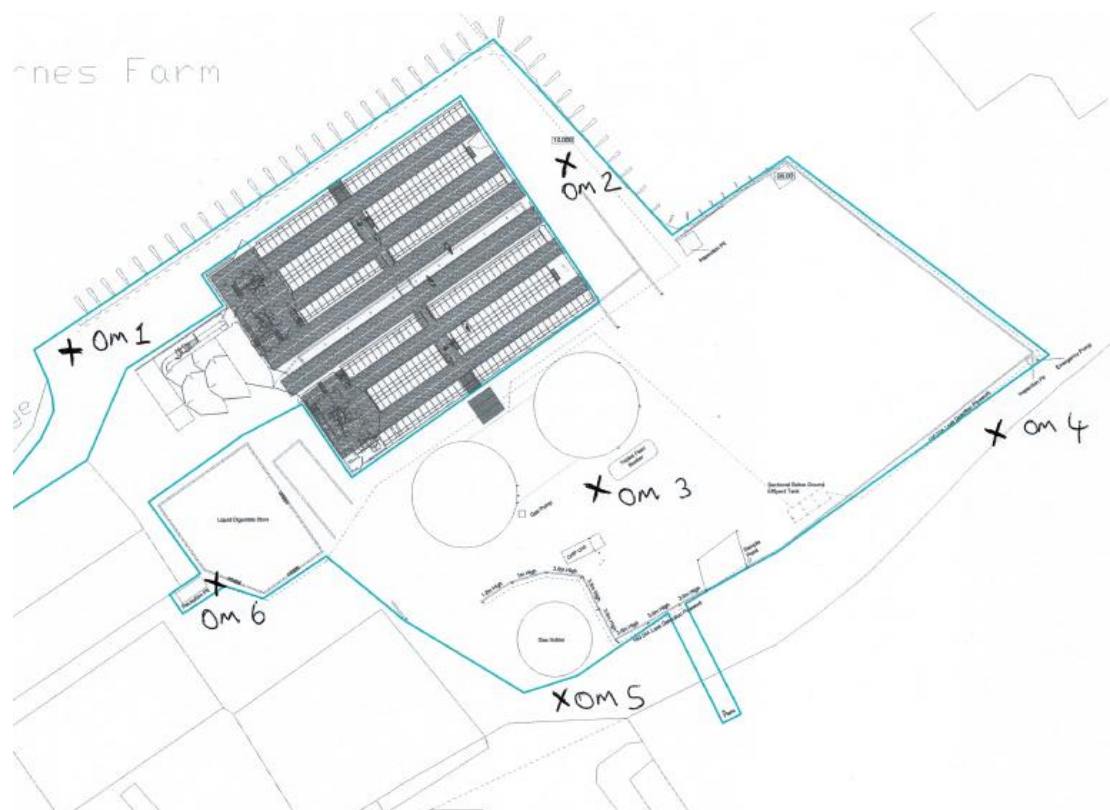
Using the information on page 15, routine monitoring for odours should be carried out around the site to comply with the permit and entered on the daily checklist with any associated wind direction, severity of the odour and action taken, to investigate a complaint, or after there has been any change to the operating parameters of the process. A record of this monitoring shall be kept on the daily checklist to identify trends in odours against particular conditions or operations. Individuals will initial the entry to identify which individual has completed the monitoring.

The identified residential receptors above have been given a copy of the contact information sheet in Appendix E attached. A similar notice is posted at the entrance to the site. These will be updated if changed.

If at any time a receptor wishes to make a complaint, they can use the contact information to contact either Nigel or Sally Green. Should they not be available then the farm office should be contacted.

Whoever is the designated operator, they will be fully conversant with the operation of the plant, how to safely shut it down in case of an emergency together with a knowledge of the contents of this Odour Management Plan.

On a daily basis, the operator shall check the wind direction. If the wind is coming from NNW through NE to SE, then the operator shall walk the perimeter of the site on the opposite side to that of the wind. Odour monitoring points routinely used which coincide with nearby sensitive receptor location are as below.



If an issue is identified, the procedure from point 4 on page 17 shall be followed (Odours Complaints Procedure).

Odour Complaint Procedures

1. Any odour complaint received will be dealt with by either Mr Nigel Green or Mrs Sally Green (the owners and operators of the farm and the named permit holders). In their absence a designated trained operator of the plant will deal with all complaints. This operator shall be trained in the full operation (and shutdown) of the plant, the emergency procedures, and the contents of this odour management plan.
2. If a complaint is made, the form included in Appendix B of this Plan will be completed and this will be available for inspection by the Environment Agency. Any calls received will be investigated immediately and contact made with the complainant within 4 hours to confirm the action which has/is being undertaken to stop the release of odour. This may potentially include shutting down of the plant until the problem can be resolved.
3. Information will normally be collected by visiting the complainant, although in some cases, contact may be made by telephone.
4. After details of the complaint have been compiled, the cause(s) will be investigated, with reference to:
 - The activities taking place on the farm at the time.
 - The timing of the complaint and whether weekday, weekend etc.
 - The weather conditions at the time.
5. The daily monitoring regime at the site boundary & the complainant's property will also be undertaken to identify the specific odour which is the cause of complaint.
6. The likely reasons for the complaint will be added to the form and the complainant will be contacted as appropriate.
7. The feasibility of making changes to the activities responsible for the complaint will be considered. Should changes be possible, the operating procedures shall be amended such that there is no repeat of the odour generation, or it is undertaken when the wind direction is such that the odour is dispersed away from any receptors.
8. Further Odour Monitoring shall be undertaken at the site boundary and the location of the complainant to confirm that the odour problem has been resolved.
9. If changes are made, the Odour Management Plan will be amended accordingly.

Review Procedures

The Odour Management Plan shall be reviewed at least every three years or as soon as practicable after a complaint (whichever is the earlier) and changes recorded in the Table on page 3 of this plan.

Improvement programme to reduce odours

Odour problem	Remedial action needed to reduce odour	Completion Date
Odour from lagoon filling	Extend fill pipe to the lower digestate level in the tank.	01/04/21
Odour Complaint	Adoption of fixed monitoring points	07/04/21

Emergency Plan

There are a number of scenarios in which the Emergency Plan would come into operation. These include but are not limited to:

1. Catastrophic failure of Digesters
2. Catastrophic failure of the Liquid Pipework
3. Catastrophic failure of the Gas Holder
4. Catastrophic failure of the Gas Pipework
5. Failure of the CHP
6. Failure of the CHP2
7. Failure of the Flare / Boiler
8. Failure of both CHP's and Flare / Boiler (use of PRV)

Should any liquid carrying vessel fail then the effected section should be isolated in order to minimise the release of its contents. As part of the site drainage plan, liquid discharge will fall across the impervious concrete yard to the pumping station at the bottom of the site. This will then return the liquid to the storage lagoon. Because the liquid will be odour emitting, based upon the prevailing wind direction, receptors that will be affected will need to be immediately informed of the emission.

Should any gas carrying vessel fail then the effected section should be isolated in order to minimise the release of its contents. Based upon the prevailing wind direction, receptors that will be affected will need to be immediately informed of the emission.

Should the digester or gas holder reach the limit of its pressure rating, and the CHP or CHP2 not be consuming biogas at a sufficient rate, then the Emergency Flare / Boiler will be used to burn off the excess gas. The emissions from this will be identical to those from the CHP exhaust stack and as such should not represent any difference in odour release to the local receptors.

Should consumption of gas through the CHP and/or the Emergency Flare / Boiler not reduce or maintain the gas pressure then the gas release valve(s) will operate to ensure the structure of the digester(s) is not put at risk. This will release biogas to atmosphere until such time that the pressure is reduced. Whilst every effort is being made to bring pressure down to an acceptable level, should the wind direction be such that local receptors may be affected, they should be informed at the earliest opportunity. Notification should also be made to the nearest Environment Agency Office of the biogas release.

The contents of the Accident Management Plan should be followed should any of the above occur.

Odour reporting form (sniff testing)

An assessment may need to be carried out either to work out whether emissions are complying with the permit, or as a part of an investigation into a complaint.

Weekly assessments can be used to build up a picture of the impact the odour has on the surrounding environment over time. This can develop 'worst case' scenarios by doing assessments during adverse weather conditions or during particularly odorous cycles of an operation. Ideally, the same methodology should be used to follow up complaints.

Please note:

- Staff normally exposed to the odours may not be able to detect or reasonably judge the intensity of odours off-site. You might be better off using office staff or people who have not recently been working on the site to do this.
- Don't use anyone who has a cold, sinusitis or a sore throat, because these can affect the sense of smell.
- To improve (or to check) data quality, you can get two people to do the test independently at the same time.
- Those doing the assessment should avoid strong food or drinks, including coffee, for at least half an hour beforehand. They should also avoid strongly scented toiletries and deodorisers in the vehicle used during the assessment.

Where you test will depend on:

- whether you are responding to a complaint;
- whether you are checking your state of compliance at sensitive receptors;
- whether you are trying to establish the source of an odour;
- wind direction.

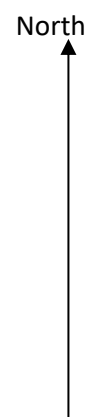
The assessment may involve someone walking along a route that you have selected either because of these factors, or in response to the conditions they found when they got there. Another option is to choose fixed points so that you can evaluate the changing situation over several weeks or months. Or the test points may vary from test to test according to local conditions, which would help you identify worst case conditions.

You should also keep a note of any external activities (such as agricultural practices) that could be either be the source of the odour, contribute to the odour, or be a confounding factor. Remember that an odour may become diluted or even change over a distance.

You should also take the factors given in the H4 Guidance (Section 7.2 on monitoring ambient air) into account.

Appendix A – Odour Report Form					Date
Time of test					
Location of test e.g. street name etc					
Weather conditions (dry, rain, fog, snow etc):					
Temperature (very warm, warm, mild, cold, or degrees if known)					
Wind strength (none, light, steady, strong, gusting)					
Wind direction (e.g. from NE)					
Intensity (see below)					
Duration (of test)					
Constant or intermittent in this period					
What does it smell like?					
Location sensitivity (see below)					
Is the source evident?					
Any other comments or observations					

Sketch a plan of where the tests were taken, the potential source(s).



<p>Intensity (Detectability)</p> <p>1 No detectable odour</p> <p>2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)</p> <p>3 Moderate odour (odour easily detected while walking & breathing normally)</p> <p>4 Strong odour</p> <p>5 Very strong odour (possibly causing nausea depending on the type of odour)</p>	<p>Location sensitivity where odour detected</p> <p>0 not detectable</p> <p>1 Remote (no housing, commercial/industrial premises or public area within 500m)</p> <p>2 Low sensitivity (no housing, etc. within 100m of area affected by odour)</p> <p>3 Moderate sensitivity (housing, etc. within 100m of area affected by odour)</p> <p>4 High sensitivity (housing, etc. within area affected by odour)</p> <p>5 Extra sensitive (complaints arising from residents within area affected by odour)</p>
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Appendix B - Odour Complaint Report Form

Time and date of complaint:	Name and address of complainant:
Telephone number of complainant:	

Date of odour:	
Time of odour:	
Location of odour, if not at above address:	
Weather conditions (i.e., dry, rain, fog, snow):	
Temperature (very warm, warm, mild, cold or degrees if known):	
Wind strength (none, light, steady, strong, gusting):	
Wind direction (eg from NE):	
Complainant's description of odour:	
○ What does it smell like?	
○ Intensity (see below):	
○ Duration (time):	
○ Constant or intermittent in this period:	
○ Does the complainant have any other comments about the odour?	
Are there any other complaints relating to the installation, or to that location? (either previously or relating to the same exposure):	
Any other relevant information:	
Do you accept that odour likely to be from your activities?	
What was happening on site at the time the odour occurred?	
Operating conditions at time the odour occurred (eg flow rate, pressure at inlet and pressure at outlet):	
Actions taken:	
Form completed by:	Date Signed

Intensity (Detectability)

- 1 No detectable odour
- 2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- 3 Moderate odour (odour easily detected while walking & breathing normally)
- 4 Strong odour
- 5 Very strong odour (possibly causing nausea depending on the type of odour)

<u>Appendix C - Odour Diary</u>		Sheet No
Much Fawley Farm	Much Fawley Fawley Hereford Herefordshire HR1 4SP	

Date of odour:				
Time of odour:				
Location of odour, if not at above address:				
Weather conditions (dry, rain, fog, snow etc):				
Temperature (very warm, warm, mild, cold or degrees if known):				
Wind strength (none, light, steady, strong, gusting):				
Wind direction (eg from NE):				
What does it smell like? How unpleasant is it? Do you consider this smell offensive?				
Intensity – How strong was it? (see below 1-5):				
How long did go on for? (time):				
Was it constant or intermittent in this period:				
What do believe the source/cause to be?				
Any actions taken or other comments:				

Intensity (Detectability)

- 1 No detectable odour
- 2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- 3 Moderate odour (odour easily detected while walking & breathing normally)
- 4 Strong odour
- 5 Very strong odour (possibly causing nausea depending on the type of odour)

Appendix D - Permitted Waste Acceptance

Group 1 – Solids

02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPERATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	Plant-tissue waste – consisting only of husks, cereal dust and waste animal feeds
02 01 06	Animal faeces, urine and manure (including spoiled straw)
02 01 99	Wastes not otherwise specified – consisting only of residues from commercial mushroom cultivation
02 03	Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea, and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	Sludges from washing, cleaning, peeling, centrifuging and separation – coffee, mushroom compost, food processing waste, food washing waste, tobacco
02 03 04	Biodegradable materials unsuitable for consumption or processing
02 06	Wastes from baking and confectionery industry
02 06 01	Biodegradable materials unsuitable for consumption or processing– consisting only of food condemned, food processing wastes, biscuits, chocolate, yeast, bread and bakery wastes
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials – consisting only of brewing waste, food processing waste and fermentation waste
02 07 99	Wastes not otherwise specified – consisting only of spent grains, hops and whiskey filter sheets/cloths
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS.
20 02	Garden and park wastes
20 02 01	Biodegradable wastes – consisting only of animal faeces, manure, garden waste, green waste, horticultural waste, plant tissue, parks and garden waste, hedge and tree trimmings, grass cuttings and leafy materials.

Group 2 – Liquids and sludges

02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPERATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	sludges from washing and cleaning – consisting only of food processing waste and food washing waste
02 03	Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea, and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 99	Wastes not otherwise specified – consisting only of sludges from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch.
02 05	wastes from the dairy products industry
02 05 01	biodegradable materials unsuitable for consumption or processing – consisting only of solid and liquid dairy products, milk, food processing wastes, yogurt and whey
02 07	Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 02	Waste from spirit distillations – consisting only of spent grains, fruit and potato pulp and sludge from distilleries
02 07 04	Biodegradable materials unsuitable for consumption or processing – consisting only of brewing waste, food processing waste, fermentation waste, beer, alcoholic drinks and fruit juice
02 07 05	Sludges from on-site effluent treatment
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 02	Waste from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 10	Combustible wastes other than those mentioned in 19 02 08 and 19 02 09 – consisting only of glycerol

Appendix E – Feedstock Odour Assessment Sheet

Sheet No

Much Fawley Farm

Much Fawley
Fawley
Hereford
Herefordshire
HR1 4SP

Date of Assessment:							
Time of Assessment:							
Waste Type							
Waste Source							
Volume (Tns)							
What does it smell like? How unpleasant is it? Do you consider this smell offensive?							
Intensity – How strong was it? (see below 1-5):							
REJECT OR ACCEPT							

Intensity (Detectability)

- 1 No detectable odour
- 2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- 3 Moderate odour (odour easily detected while walking & breathing normally)
- 4 Strong odour
- 5 Very strong odour (possibly causing nausea depending on the type of odour)

Appendix F - Contact Information Sheet

Much Fawley Anaerobic Digester
Much Fawley Farm
Fawley,
Herefordshire
HR1 4SP

Emergency and Complaints Contact Information

Should you wish to make a complaint about emissions from this plant, or in case of emergency, please contact the following;

Mr Nigel Green	Tel: 07970 194271
Sally Green	Tel: 07881 023067
Farm Office	Tel: 01432 840632

Any comments you wish to make in writing should be made to the above address, or by e-mail to:

green@muchfawley.co.uk