

Penty Farming	Environmental Management System		
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Purpose & Objectives

The objectives for this Odour Management Plan (OMP) are:

- Identify all possible odour sources at the facility.
- Outline the odour prevention control and mitigation measures employed on site.
- Ensure all operating conditions (normal, abnormal and emergency) are considered in evaluating the risk of odour release.
- Commit to pro-actively monitoring of odour emissions and in preventing impact on receptors, if deemed necessary.
- Reduce the risk of odour releasing incidents or accidents and planning for foreseeable potential events accordingly.
- Describe the contingency arrangements in place to prevent or react effectively to odour releases.

Management Plan Format

The structure of this management plan is as follows:

Receptor Identification -Discussion and detail of sensitive receptors, including those within 400 metres radius of the installation boundaries. Site Management will refer to the plan when reviewing odour source impact and when responding to complaints.

Source Materials and Odour Release Inventories –

- Lists odour sources identified at the installation.
- Potential impacts from the odour sources listed have then been assessed and a record of the assessment detailed within the PF-R02-F1 Environmental Risk Assessment (ERA). The ERA provides an odour impact assessment for the farm by detailing:
 - The potential odour releases from site under normal operation;
 - The impact control measures employed to minimise the potential odours from identified release sources;
 - Abnormal scenarios leading to potential odour releases; and
 - Contingency plans in the event of the above abnormal scenarios occurring.

Overview of Odour Impact Controls – Table 3 details the key control measures and procedures in place to minimise the potential for odour generation from site.

Monitoring and Evaluation – This section of the management plan provides reference to any odour monitoring undertaken at site and complaint procedures in place in the event of an odour complaint being received.

Environmental Management System (EMS) references to all associated EMS documentation are provided throughout the OMP. The 'EM 00 System Index' should be consulted to cross reference to the latest Issue Number / Date for the most current version of the document in circulation.

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Audit and Review

Site Management will ensure the effectiveness of this OMP and associated procedures is reviewed annually or when the following occurs:

- A series of sustained complaints that have been linked by Site Management or the Regulator to deficiencies in this OMP;
- Significant change to site infrastructure or operating techniques.

Reviews of the OMP and associated procedures will be recorded on the EM 03-006 Audit and Document Review Form. Where any improvements are required to 'on-site' odour control techniques, the Incident and Corrective Action reporting structure will be followed. Corrective actions will be recorded on the EM 03-001 Incident and Corrective Action Report Form.

Guidance

Table 1 outlines the sector guidance documents, and their relevant BAT requirements, that have been considered during the preparation of this OMP. This Table will be updated as appropriate during every review to ensure the latest available Environment Agency guidance is considered.

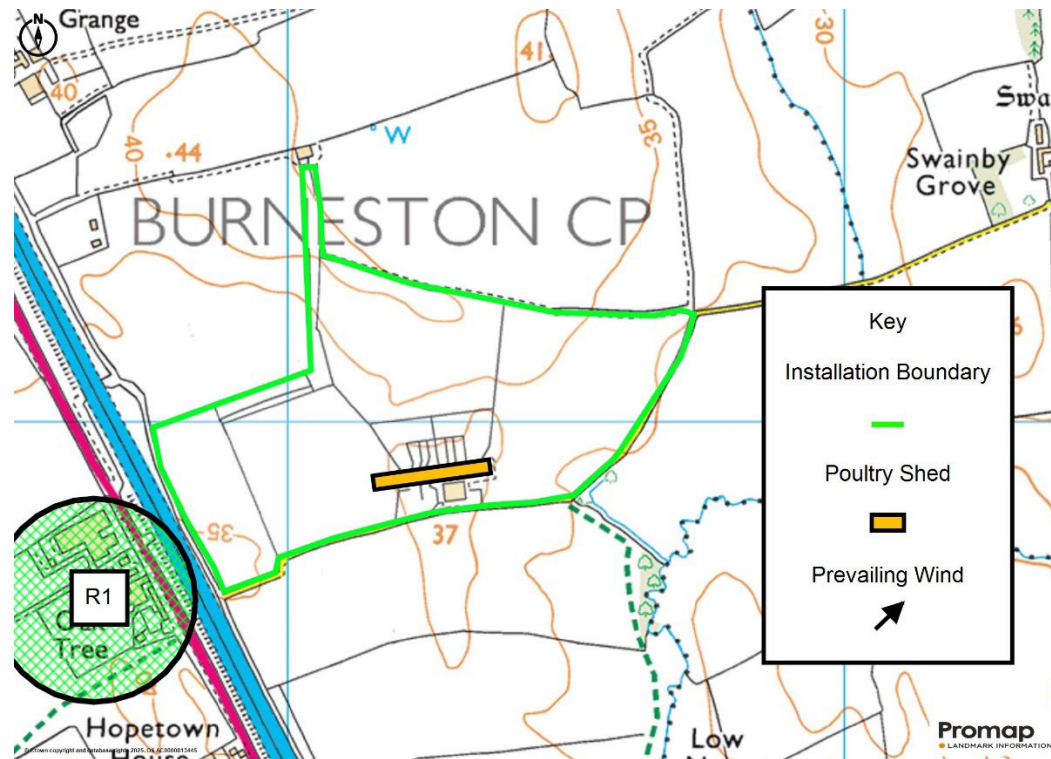
Table 1 – Guidance Documents		
Reference	Title	Document Issue Date / Version
How to comply with your environmental permit for intensive farming	Appendix 4 - Odour management at intensive livestock installations	V1 - March 2011

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Site Setting and Receptor Identification

Oak Tree Farm is an intensive free range hen farm, located at Burneston, Bedale, North Yorkshire, England, DL8 2JW. The installation comprises of one hen unit and an extensive ranging area. The Permitted area is approximately c.32 hectares. The National Grid Reference for the centre of the site is SE 32295 84908.

As shown on the Receptor Plan below and detailed on the associated receptor schedule in Table 2, the nearest human occupied sensitive receptor that is not associated with the farm is Hill Top Interiors Commercial / Industrial units, c.135 metres to the West.



Do Not Scale

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Table 2: Summary of Sensitive Receptors Identified Within 400 metres			
Nature of Receptor	Direction	Approximate Distance from the Closest Installation Boundary	Plan Reference
Residential / Industrial / Commercial / Offices	W	c. 135 metres	R1 – Hill Top Interiors

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Source Material Inventory

The ERA referenced above that has been submitted in support of the Permit application identified the following odour sources on site –

- Odour emissions from livestock during transportation.
- Odour emissions from livestock in housing and ranging area.
- Odour emissions linked to diet of the livestock.
- Odour emissions from ventilation systems.
- Odour from hen litter.
- Odours from wash down and clean out.
- Odour emissions from carcase storage and disposal.

Pathways and Receptors

The pathway for all of the above sources is via the atmosphere. The prevailing wind direction is South Westerly. There are no downwind receptors within 400 metres of the proposed installation boundary. It should be noted that site have not received any complaints from neighbours relating to odour from the farm or associated operations.

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Overview of Odour Impact Controls

Table 3 below details the key control measures and procedures in place to minimise the potential for odour generation from site.

Table 3 – Overview of Odour Impact Controls		
Odour Source / Control Measure	Actions taken to minimise odour	Frequency of Implementation / Records
Transport of Livestock	<ul style="list-style-type: none"> Livestock vehicles are kept clean in line with Animal Welfare requirements. 	On-going. Requirement of the livestock haulier to ensure vehicles are kept clean.
All housing and management	<ul style="list-style-type: none"> Livestock and housing are checked for cleanliness as part of daily welfare checks. Livestock and housing are cleaned out in accordance with written cleaning plan. No litter stored on site. Potentially odorous spillages such as feed ingredients and litter are cleaned up promptly. Stocking density maintained at or below levels set out in Welfare Regulations. Temperature and humidity in animal housing is monitored daily and controlled manually to optimise the housed environment for the livestock and air quality conditions. Ventilation corresponds to animals requirements; housing is insulated to help keep cool in the summer. Feed is produced as required to prevent wastage. Feeders and drinkers have been designed to prevent wastage and leaks. 	On-going and records of livestock checks are documented as part of egg production assurance scheme.

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Table 3 – Overview of Odour Impact Controls		
Odour Source / Control Measure	Actions taken to minimise odour	Frequency of Implementation / Records
Effects of diet on odour and ammonia emissions (feed selection)	<ul style="list-style-type: none"> Feed composition is closely matched to hens' requirements, especially protein. Diets are continually reviewed with a professional nutritionist to ensure good performance. Records of crude protein levels and diet formulation are kept in the site office. Reduction of protein and phosphorus levels in feed as bird age increases improving digestibility, efficient nutrient utilisation and controlling microbial decomposition of litter. 	On-going. Records of the diet used recorded as part of the egg production assurance scheme.
Cleanliness of yard areas	<ul style="list-style-type: none"> Yard surfaces are properly maintained. Litter from all housing is loaded directly to trailers for transport to off-site when houses are cleaned out. While not covered, litter trailers are not overfilled to minimise potential for spillages of materials that are left to degrade and become potential sources of odour. Yards and open surfaces are designed to ensure effective separation of uncontaminated rainwater from litter. 	On-going as part of the inspection and maintenance programme.
Feed delivery and storage	<ul style="list-style-type: none"> Feed meal is produced internally and stored in covered silos to prevent the feed from getting wet and spoiling and becoming a potential odour source. Feed is distributed via sealed pipework, minimising the opportunity for odour release. The feed storage and distribution pipework system is inspected in accordance with the site's preventative maintenance schedule. 	On-going. Integrity of feed silos and distribution systems checked as part of site infrastructure inspections.

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Table 3 – Overview of Odour Impact Controls		
Odour Source / Control Measure	Actions taken to minimise odour	Frequency of Implementation / Records
	<p>Repairs to leaks / issues with the systems will be instigated immediately.</p> <ul style="list-style-type: none"> High performance nipple drinkers with ‘drip cups’ are used to minimise water wasted and improve litter quality, subsequently reducing ammonia levels inside the sheds. Feed and water lines inspected daily. 	
Ventilation	<ul style="list-style-type: none"> Ventilation corresponds to animals’ needs and is checked to be functioning correctly. Air outlets positioned to optimise dispersion to atmosphere. Buildings insulated and insulation kept in good order. 	On-going. Performance of ventilation checked by Stockmen on daily basis.
Cleaning out	<ul style="list-style-type: none"> Litter removed from sheds via belt system on a twice weekly basis. No litter stored on site. Full cleaning out begins the day after destock and takes 10-days to complete in line with the site’s clean down and biosecurity procedures. Full cleaning out is primarily of internal units, with wash waters captured in dedicated storage tanks, prior to removal off site in enclosed tankers. Wash waters are removed from site during the clean down process, with tanks left empty at the end of clean down period ensuring minimal potential for odour from stored wash waters. Contingency contractors listed on site’s Emergency Contact list, to ensure no delays in the removal of litter and wash waters. 	<ul style="list-style-type: none"> On-going. Records of clean out and wash waters documented. Land spread records are kept. Records of agreements with businesses are kept where used litter is spread on third party owned land / transferred for other off-site disposal / recovery.

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Table 3 – Overview of Odour Impact Controls		
Odour Source / Control Measure	Actions taken to minimise odour	Frequency of Implementation / Records
	<ul style="list-style-type: none"> Shed doors and pop holes remain closed during clean down, with ventilation reduced to a minimum to minimise the potential for odour from cleaning operations to impact on off-site receptors. Litter primarily spread on owned land, in accordance with COGAP to ensure sound application techniques, minimising odour potential from spreading operations. Where litter is not spread on owned land, it will be sent for land spreading on third party land or other recovery / disposal inline with relevant Environmental Regulations. 	
Animal carcasses	<ul style="list-style-type: none"> Fallen stock are kept in covered storage prior to collection by a fallen stock contactor. Storage container is sealed preventing leaks. Fallen stock collected from sheds daily and placed in fallen stock bin which is kept cool and shaded. Fallen stock bin collected frequently. 	On-going. Numbers of fallen stock are recorded. Commercial Documents held to evidence collection.
Dealing with odour complaints	<ul style="list-style-type: none"> Any odour complaints will be reported to the Site Manager. The Site Manager will log and investigate causes of all odour complaints. The Site Manager will identify the source of the odour issue and will monitor odour levels at the site boundary as part of the investigation, should the source be related to site operations. The complaint details and subsequent investigation will be recorded on the site compliant form and a copy will be kept in the site office. 	On-going. Complaints will be logged following the Communication and Complaints Procedure.

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Table 3 – Overview of Odour Impact Controls		
Odour Source / Control Measure	Actions taken to minimise odour	Frequency of Implementation / Records
General comments	<ul style="list-style-type: none"> • Neighbours will be informed (where necessary) prior to activities which may cause odour. • Odour levels will be monitored on site by all staff. The source of abnormal odours will be identified and appropriate action will be taken to reduce odour levels back to normal levels. • The effectiveness of odour control measures will be reviewed at least once a year or sooner in the event of any complaint or relevant changes to operations. 	On-going. Review of effectiveness of odour controls will be documented.
Staff Training	<ul style="list-style-type: none"> • All members of operational staff are aware of this Odour Management Plan, and their responsibilities for controlling operations on site. Clear lines of responsibility have been established on site between operational staff and the management team, ensuring any actions required to mitigate against odour nuisance are taken and recorded appropriately. • Site conditions are monitored at all times by staff during routine tasks, any concerns regarding odour are reported to the management team. 	On-going. Records of daily checks maintained as part of egg production assurance scheme.

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Monitoring / Corrective Action and Response

Monitoring - The ERA has set out that the potential for odour emissions from site to impact on identified receptors is insignificant. Therefore, routine odour monitoring is not considered necessary.

Should detailed monitoring of site odours be required, e.g. following a complaint, this will be undertaken following the EM 02-010 Odour Assessment Procedure. The procedure is based on a sniff test methodology that has been designed to assess the level of odour generation on site and the potential for off-site impacts so that pro-active mitigation can be undertaken. Detailed odour Monitoring will be undertaken as follows:

Odour Monitoring is recorded on the EM 03-005 Odour Monitoring Form.

Incident and Corrective Action - Any faults or deficiencies encountered on-site with regards to infrastructure and where procedures could not be carried out are detailed using an incident and corrective action reporting structure and recorded on EM 03-001 Incident and Corrective Action Report Form. This will instigate appropriate level of management commitment to ensure corrective action is undertaken. A review of the corrective action will be included to ensure satisfactory completion and senior management sign-off.

Complaints – All environmental complaints are dealt with by the EM 02-007 Communication & Complaints Procedure and recorded on the EM 03-003 Complaint Handling Form. The procedure deals with how to manage complaints and ensures that all relevant communications can be dealt with appropriately. The procedure outlines the requirements to communicate effectively with Regulators and any other interested parties and also internal staff.

Interpretation of Monitoring Results and Complaint Records – Site Management will review all Incident and Corrective Action and Complaint Records to ensure good evidence is provided that corrective actions have been implemented to ensure control measures are in place and are working as intended. These reviews will be recorded on the EM 03-006 Audit and Document Review Form.

Community Engagement – A member of Site Management will always be available to liaise with Regulators / general public during shutdowns and other abnormal situations.

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	EM 02-007 COMMUNICATION & COMPLAINTS PROCEDURE	Version No:	1
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1. Purpose - To manage all communications in relation to regulatory authorities, interested parties, staff and environmental complaints in relation to land spread activities.

2. Procedure:

Complaint Handling

- I. Staff receiving complaints via the telephone or in person will record the complaint on a EM 03-003 Complaint Handling Form. If the complaint requires immediate action, Site Management would be informed without delay.
- II. Where odour complaints are emailed through by the Environment Agency and / or complainant directly, a copy of the email will be held on file with the EM 03-003 Complaint Handling Form.
- III. EM 03-003 Complaint Handling Forms together with letters of complaint or communication from authorities will be passed on to Site Management.
- IV. The EM 03-003 Complaint Handling Form will provide a record of whether the complaint requires immediate action, including communication with the relevant authorities.
- V. If a definite cause for the complaint is identified, corrective action will be detailed on the form or on an EM 03-001 Incident and Corrective Action Form.
- VI. Where no action is required, justification will be provided within the EM 03-003 Complaint Handling Form.
- VII. The implementation of the corrective action will be reviewed by Site Management and the Incident and Corrective Action / Complaint Form signed off on successful completion. The complainant will be notified of the changes made and the complaint will be deemed to be resolved.
- VIII. Where no specific cause can be found regarding the complaint, Site Management will monitor the particular issue for recurrence and a response will be issued to the complainant and the matter deemed to be resolved.
- IX. In all cases management will aim to complete the EM 03-003 Complaint Handling Forms within 7 working days of receipt of the complaint.

Regulators

- I. Formal reporting required by any Environmental Permit will be submitted to the EA in accordance with the Environmental Permit.
- II. If an Environmental Permit is held by the Company, for the following situations, the EA must be notified without delay by Site Management:-

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- Any breach, or known imminent breach, of a Permit Condition;
 - Any occurrence / incident as defined in the Environmental Accident Management Plan, and specifically:-
 - “the detection of any malfunction, breakdown, or failure of equipment or techniques, accidents or fugitive emission which has caused, is causing or may cause significant pollution”
 - “the breach of a limit specified in the Permit”
 - “any significant adverse environmental effects”
 - Receipt of a valid environmental complaint (eg, odour).
- III. Immediate notification to the EA should be by telephone using the details in the Emergency Contact List;
- IV. For all situations stated in II above, written communication using the EM 04-001 Environment Agency Notification Forms should be provided within 24 hours of site being aware of the issue, unless otherwise agreed in writing with the EA site inspector;
- V. The Part B section of the form should be issued to the EA with all necessary supporting documents within a timeframe agreed with the EA.
- VI. All other communications with Regulators should be made or confirmed in writing and kept on record.

Regulators include:

- Environment Agency (EA)
- Local Authority
- Animal Health

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	EM 02-010 ODOUR ASSESSMENT PROCEDURE	Version No:	1
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1. Purpose:

Assess the level of odour generation from Permitted activities and the potential for off-site impacts so that pro-active mitigation can be undertaken.

2. Frequency

Odour monitoring will be undertaken at the following frequencies:-

- Upon receipt of a complaint from a third party or Regulator where the complaint has been reported for the same day.
- As soon as possible upon receipt of notification of odours from site staff or visitor/contractor;
- If any odour nuisance is detected while undertaking site operations;
- Following an on-site incident that could lead to odour emissions (e.g. major spillage of materials).

3. Procedure:

- Only staff / contractors trained in this procedure will undertake Odour Monitoring of Permitted activities.
- Staff completing the assessment should avoid strong food or drinks, including mints, coffee, and avoid smoking for at least half an hour beforehand.
- For all monitoring check the wind direction before you start and start upwind taking a route to finish monitoring at a downwind location.
- Monitoring will be completed at a minimum of four points, e.g. one in each compass direction from the area of operations under assessment, with one upwind and one downwind of operations.
- Where you test will depend on whether you are:
 - responding to a complaint.
 - checking for odour at a particular sensitive receptor / known complainant location.
 - are trying to establish the source of an odour; and
 - wind direction.

With reference to the above, complete the EM 03-005 Odour Monitoring Form as follows:

- Note name of the assessor, the date and reason for the odour assessment (Routine / Following a Compliant / Incident);
- Confirm site operational and note any relevant operations (e.g. incineration of fallen stock) and / or off-site conditions (e.g. farm muck spreading to fields close to site);

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Spend at least four to five minutes at each odour assessment point. One to two minutes is ok at upwind location points where detection of site odours is considered unlikely. For each location record the following:

- Note the time the odour assessment started and was completed;
- Add the Receptor Sensitivity using the key below;
- Complete the prevailing weather conditions for each monitoring location;
- Details of any odour detected in terms of its Intensity / Detectability using the scales below -
- If any odour detected, note whether this a Constant or an Intermittent Odour, or score its persistence using the scales below;
- Describe any odour detected (e.g. odour from neighbouring property), listing the odour source where this is identifiable.
- When undertaking monitoring, if an odour of interest is detected when moving between monitoring locations, complete an assessment at this location and mark the assessment point on the plan.
- Where off-site odours are detected which could impact on receptors, perform the following:
 - Inform the Site Management and complete an EM 03-001 Incident and Corrective Action Report Form;
 - Identify likely source and mitigate where possible;
 - Inform the Regulator following the EM 02-009 Communication and Complaints Procedure.

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Key / Monitoring Guide

General / Location <ul style="list-style-type: none"> Site Operations - Normal / Abnormal - Note any specific activity being undertaken that could give rise to odour. Record date, time commenced odour assessment, length of time the odour remained, time odour ceased and returned. Location (street name, house number or place). Comments / Observations - Note If properties are occupied, if residents are at home, windows open on the property, washing out in the garden, reaction of members of the public as they walk through any odorous and potentially offensive plume, if caravans/ tents present, etc Description of the odour and how it makes you feel Are odorous activities or permitted sites visible, what can you see, e.g. collection of odorous materials Can you detect any other off-site odour sources. 	
Location, sensitivity where odour detected <ol style="list-style-type: none"> Low sensitivity (e.g. footpath, road) Medium sensitivity (e.g. industrial or commercial workplaces) High sensitivity (housing, pub/ hotel etc) <p>(Consider the proximity to seasonal tourism caravan/ camping sites and other places where human activity may be concentrated, nature reserve footpaths / fishing lakes, schools etc)</p>	
Weather Conditions <p>Temperature (In car thermometer reading), warm, mild, cold, hot, dry, rain, fog or snow.</p> <p>Data can be taken from local online weather reports from BBC / Met Office. Check to ensure consistent with on ground conditions.</p> <p>Wind strength, The Beaufort Scale</p> <p>0 = Calm (Smoke rises vertically)</p> <p>1 = Light air (Direction of wind shown by smoke drift)</p> <p>2 = Light breeze (Wind felt on face, leaves rustle)</p> <p>3 = Gentle breeze (Leaves & small twigs in constant motion)</p> <p>4 = Moderate breeze (Raises dust & loose paper, small branches moved)</p> <p>5 = Fresh breeze (Small trees in leaf begin to sway)</p> <p>6 = Strong breeze (Umbrellas used with difficulty)</p> <p>7 = Inconvenience felt when walking against wind)</p>	
Intensity (Detectability) Rating <ol style="list-style-type: none"> No odour Very faint odour Faint odour Distinct odour Strong odour Very strong odour Extremely strong odour 	Extent & Persistence <ol style="list-style-type: none"> Local & transient (only detected on installation or at boundary when wind drops or blows) Transient (as above but away from installation) Persistent but fairly localised Persistent & pervasive up to 50m from boundary Persistent & widespread (50m+ from boundary)
Offensiveness <ol style="list-style-type: none"> Less/ potentially offensive Moderately offensive Most/ highly offensive <p>(Depends on intensity, frequency of exposure and persistence. Although you may only be exposed for a few minutes take into account the long-term effect on receptors exposed on a regular basis)</p>	

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Admin Details		
Staff Member Completing the Form		Today's Date
Complaint References / Identifiers¹		Time and Date of Alleged Environmental Issues
Type of Complaint/s - Odour / Noise / Dust / Flies / Other		
Complainants Descriptions²		
Detail Weather Data at Time Closest to Compliant (Wind Direction / Wind Speed / Temperature)		
Initial Evaluation / Response to Complaint/s		
Further Action Details		
Action Taken - One of 1 or 2		Reasoning / Document Reference
1	No Further Action Required	<i>Ensure sufficient written justification is provided above or cross referenced to –</i>
2	EM 03-001 Incident and Corrective Action Form ³	
Feedback		
If requested – details of correspondence sent to provide feedback to the Regulator / Complainant if requested?		Copy of this form emailed to EA.
Notes – 1 - Use the Environment Agency's National Incident Report Number for all Complaints received from the EA 2 – Take detail from written correspondence / add notes from telecon 3 – The EM 03-001 will detail if a Schedule 5 Notification is required to be provided to the Environment Agency. 4 - All complaints to be logged onto our central record & this completed Complaint Handling Form will be stored electronically or in hard copy with copies of all written correspondence associated to the complaint/s.		