**Whinney Hill Landfill Site**

**Document Reference Number: WNHP2 11**

**Odour Management & Monitoring Plan**

## Document Details

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| Prepared by | Roy Cooper |
| Reviewed by | Paula Bakes/Kate Jones |
| Approved by | Richard Phillips  |
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## Document Review History

|  |  |  |
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| **Date** | **Description** | **Summary of Changes** |
| November 2004 | Issue 1 | Original document for issue  |
| February 2012  | Issue 2 | Updated format and refs to SUEZ P&P and to reflect revisions made to Amenity Risk Assessment. |
| July 2012 | Issue 3 | Revised monitoring locations, tipping against temporary capped areas. |
| November 2012 | Issue 4 | Inclusion with permit variation. |
| February 2013 | Issue 5 | EA request for inclusion within permit variation |
| September 2013 | Issue 6 | Updated in-line with Agency H4 Guidance |
| February 2014 | Issue 7 | EA comments in relation to September 2013 draft submission |
| February 2018 | Issue 8 | Reformatted to SUEZ, removal of references to Park Royal, updated Figure 1 and Figure 2 and general routine check |
| January 2023 | Issue 9 | Reviewed document, updated template, addition of LTP |

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# 1.0 Introduction

This Odour Management Plan (OMP) for Whinney Hill Phase 2 Landfill Site (the Site) has been compiled to ensure the Site remains compliant with Environmental Permit BL9500IJ (the Permit), specifically condition 3.3.1, which states:

*‘Emissions from the activities shall be free from odour at levels likely to cause pollution outside the Site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.’*

All staff involved in the operations allowed by the Permit, should sign a written record to demonstrate they have read, understood and are conversant with the requirements of this management plan. This record will be located within the Site Operational Documents folder, in front of this management plan.

This management plan has been written in accordance with SUEZ Integrated Management system (IMS), which is certified to ISO 9001, 14001 and OHSAS 18001. It has also been written in accordance with the Site Permit and Environment Agency Guidance: H4 Odour Management.

The OMP should be read in conjunction with the other management plans implemented at the Site.

Any deviation to this OMP should only be undertaken following approval from the Technically Competent Manager (TCM).

# 2.0 Sources, Pathways & Receptors

## 2.1 Sources

There is potential for odour to arise from a variety of sources and/or release points at the Site as a result of the activities carried out in accordance with the Permit.

Primarily, odour is associated with the degradation of putrescible waste and subsequently, the production of landfill gas and landfill leachate, which are generated as a result of the degradation. A full list of the odour sources associated with the Site is presented within Appendix A. This will be updated in the event that odour release is identified from a source not detailed on the list.

Waste streams considered to pose a higher potential risk of odour arising are detailed within the Waste Types Management Plan (WNHP2/01). This list is reviewed/amended if waste types not identified in this list cause an odour incident. Prior to waste acceptance, any waste streams considered to be potentially odorous are identified via completion of the Waste Enquiry Form (WEF), as detailed in the Waste Acceptance Management Plan (WNHP2/02). The WEF will also detail any additional actions that may need to be taken onsite during the waste acceptance, to minimise the potential for odour generation. Examples of such action are detailed in Table 2 alongside the appropriate management plan in which the actions are contained.

A biological Leachate Treatment Plant (LTP) is in under construction at the site in 2022/2023. The LTP has the potential to generate odorous emissions, however this is considered unlikely as the biological treatment of liquid wastes is known to be a low odour activity.

It is also important to note that odour could arise from other sources within the local area. Those previously identified as potential sources of odour are below and shown in Figure 1:

* Hyndburn Sewage Treatment Works
* Waste paper pulp spreading on fields near Cock Bridge and Hapton
* Farming to the east of Great Harwood
* Muck spreading south west of Altham and west of Church
* Pig slurry tankering
* The Travellers Site
* Chemical Facility / Industrial Estate
* Spreading of gut contents and brewery effluent in Higham.

The above list and Figure 1 will be updated as and when additional external sources of odour are identified.

## 2.2 Pathways

A number of pathways (commonly referred to as release points) exist at the Site which are the link between the source detailed above and the receptors detailed below. These are presented in Appendix A, together with the associated source term. Movement of odours between the source and receptor will be affected by the severity of the odour at source and the meteorological conditions, which are recorded in accordance with the Meteorological Monitoring Plan (WNHP2/16).

## 2.3 Receptors

The Site is predominantly located within a mixed residential, commercial and industrial area, thus is surrounded by a number of receptors. Key receptors are detailed in Table 1.

Table 1 - Key Receptors Within the Vicinity of the Site

|  |  |  |  |
| --- | --- | --- | --- |
| **Receptor Name** | **Type** | **Distance** | **Direction** |
| Cockwood Grange | SSSI | 4100m | North |
| Harper Clough and Smally Delph | SSSI | 4400m | North West |
| Domestic Housing Estate | Residential | 75m | North West |
| Moorfield Industrial Estate | Industrial | 45m | North |
| M65 Motorway | Public Highway | 45m | North |
| Atlas Street Industrial Estate | Industrial | 250m | South West |
| Leeds & Liverpool Canal | Waterway | 275m | West |
| Cricket Ground | Open Public Space | 275m | South West |
| Domestic housing (Whalley Road, Tunstall Drive and East Crescent) | Residential | 45m | South |
| Sankey House Farm | Residential | 490m | East |
| Whinney Hill House and Caravan Park | Residential, Caravan park | 475m | South East |
| Huncoat Industrial Estate | Industrial | 490m | South East |
| Marshall’s Brickworks | Industrial | 245m | South East |
| Domestic properties on Oak Bank/Enfield Road | Residential  | 650m | South East |
| Public Footpath | Public right of way | 10m | West |

Where there is any change in the number/type of receptors around the Site, the above table will be updated accordingly.

# Odour Management & Control Measures

There are numerous management techniques in place to minimise the potential for odour arising. These are detailed in Table 2.

Table 2. Odour Management Techniques and Appropriate Management Plans

|  |  |
| --- | --- |
| **Measure to Mitigate Odour Arising** | **Appropriate Management Plan(s)** |
| Identify waste streams that may potentially give rise to odour to allow precautionary measures to be undertaken / considered. | Waste Types (WNHP2/01) and Waste Acceptance Procedures (WNHP2/02). |
| Sheeting or netting of all open topped vehicles to prevent odour release. | WNHP2/02 |
| Limiting the number of vehicles containing odorous waste on the working area at one time to allow deposit, compacting and covering as quickly as possible. | WNHP2/02 |
| Prevention/limiting the acceptance of certain waste streams being accepted during certain weather conditions to prevent odour release. | WNHP2/02, Waste Deposit and Emplacement Procedures (WNHP2/03), Odour Management Plan (WNHP2/11) (see Section 5). |
| Operating a limited operational area to minimise the area for odour generation. | WNHP2/03 |
| Covering deposited waste to minimise odour release potential. | WNHP2/03 |
| Following each lift of waste, re-sealing potential odour release pathways around monitoring infrastructure. | WNHP2/03 |
| The use of odour masking or neutralising agents will be employed around the Site. | WNHP2/11 – Odour masking techniques will be employed as deemed necessary by the TCM (see Section 5). |
| Leachate Management occurring in accordance with the Leachate Management Plan | Leachate Management Plan (WNHP2/04) |
| Gas Management occurring in accordance with the Gas Management Plan | Gas Management Plan (WNHP2/05) |
| Fire Management occurring in accordance with the Emergency Fire Procedure included in the Accident Management Plan, in the event of a fire. | Fire Management Plan within Accident Management Plan (WNHP2/20) |
| Monitoring for the presence of odour around the Site to minimise odour release potential. | WNHP2/11 (see Section 4). |
| Contingency actions in the event of odour release to prevent odour migrating outside of the Site boundary. | WNHP2/11 (see Section 5). |
| Regular reviews of the Odour Management Plan to prevent future occurrences of odour escape. | WNHP2/11 (see Section 5), or least 4 yearly |

Specific to the LTP, the following management techniques will be employed:

* The LTP is a closed system and contained process reducing the risk of detectable odour off-site.
* Leachate will be transferred to the leachate treatment plant through sealed pipework.
* The LTP will benefit from an outlet to an off-gas odour treatment system (carbon filter) for the most likely odourous activity (storage of untreated leachate in the raw leachate tank).
* Leachate storage times will be kept to a minimum.
* Regular monitoring, cleaning and general good housekeeping will be undertaken on site.
* Operational areas, site haul roads and drainage channels will be cleaned regularly to minimise odour generation.
* To ensure a ‘good neighbour’ approach to local residents a telephone number will be provided and visible on the site board at the entrance to allow residents to contact SUEZ.
* Odour Monitoring is undertaken as detailed in Section 5.
* A complaints procedure is in place as details in Section 4 and 5.

Additionally, all staff involved in the undertaking of sniff checks and investigations as detailed in Sections 4 and 5 will attend Odour Acuity Training.

# Odour Monitoring

Odour monitoring is required to demonstrate the effectiveness of this Management Plan and comprises of daily and weekly sniff testing checks being undertaken by suitably trained personnel. Results are logged on the IMS daily/weekly check sheet and the Odour Check sheet Proforma (Appendix B). The recording of odours should be in-line with the scoring matrix provided in Appendix B.

Odour monitoring is carried out by personnel who have undergone odour acuity training. Those doing the assessment will try to avoid where possible strong food or drinks, including coffee, for at least half an hour beforehand and strong scented toiletries and deodorisers in any vehicle used during the assessment.

The sniff checks comprise of the trained personnel walking around the Site boundary and stopping for 2 minutes at each of the following locations (Figure 2):

1. Eastern Site Boundary
2. Whinney Hill Road
3. Whinney Hill Road
4. Leachate Treatment Plant
5. Leachate Treatment Area Entrance
6. Whinney Hill Road Bend
7. Footpath
8. Whalley Road Traffic Lights
9. Northern Boundary M65

Other locations inside the Site boundary that will be checked include gas and leachate wells, siderisers and pumping chambers, haul roads and exposed stone drainage blanket in the active cell on a daily basis.

Any other locations noted to be odorous or potentially odorous should also be recorded, including odours potentially associated with external sources. These will be determined by the TCM.

When puncturing the temporary cap prior to the placement of waste in the active area, an inspection will be recorded as an addendum to the daily odour check sheet (see Appendix B).

Monthly sniff testing checks are also undertaken by the monitoring team with results logged as part of their site inspection form. Additionally, quantitative emissions monitoring is undertaken in accordance with the Monitoring Management Plan (WNHP07).

Where any odour is detected and considered to be of moderate intensity or above, the contingency actions detailed in Section 5 will be implemented.

In addition to the above, investigations are undertaken in the event that any complaints are received at the Site, either directly or via the Environment Agency. In the event of a complaint, the complaint is detailed on the Proforma presented in Appendix C. The subsequent investigation is recorded on the Proforma included within Appendix D.

Subsequently, odour monitoring results and/or complaints and investigations are reviewed during the Site’s internal Monthly Compliance Meeting and at residents meetings.

# Contingency Actions, Reporting and Recording

## 5.1 Contingency Actions

The contingency actions that will be followed in the event of odour being identified during the odour monitoring are detailed in Table 3. It is also possible that complaints may be received as a result of an odour escape. Contingency actions to be followed in this scenario are also detailed in Table 3.

Table 3. Contingency Actions

| **Event** | **Action** | **Timescale** |
| --- | --- | --- |
| Odour noted around the Site but within the boundary with a ≥moderate intensity | Record on the Site daily checklist and if unknown, the exact source of odour escape should be determined, together with remedial action completed. Typical remedial actions are detailed in Table 4. If remedial action cannot be undertaken within 24 hours, a CAR should be raised on COMPAS to ensure appropriate remedial action is undertaken with an appropriate timeframe set. | 24 hours |
| Odour noted outside of the Site boundary with a ≥moderate intensity | 24 hours |
| Complaint received regarding odour | Record on the Site daily checklist, the Proforma in Appendix C and raised on COMPAS as well as the Amenity spreadsheet saved in H:\EIR\2.0 EIR Reporting & Comms\2.2 UK Reports\EIR Registers\Amenity Complaints Register. An investigation should be undertaken as part of the COMPAS CAR to identify the source of odour, using the Complaint Investigation Form (Appendix D). The outcome should be provided to the Environment Agency/complainant and appropriate remedial action undertaken if necessary, within an appropriate timeframe set. Typical remedial actions are detailed in Table 4.  | 24 hours |
| Damage to infrastructure which could lead to potential odour release | Record on the Site daily checklist and repaired by site staff if possible. If the damage cannot be repaired within 24 hours, a CAR should be raised on COMPAS to ensure remedial action is undertaken with an appropriate timeframe set. Typical remedial actions are detailed in Table 4.  | 24 hours |

It is important to note that any persistent odour release points should be remediated as soon as practicable and within seven days at the latest.

Typical remedial actions that may be required, dependent upon the odour source, are detailed in Table 4. However, the type of remedial action will be determined based on the decision made by the TCM.

Table 4. Typical Remedial Actions

|  |  |
| --- | --- |
| **Point Sources** | **Typical Remedial Action** |
| Leachate and gas extraction wells, leachate siderisers, monitoring points | Visual and olfactory inspection of infrastructure to identify sourceSurface emissions survey undertaken to identify point sourcesSealing of leachate wells / gas wells / leachate siderisers / monitoring points and the connection of leachate wells / gas wells / leachate siderisers / monitoring points to the gas extraction systemOdour neutralisation/masking techniques  |
| Gas extraction system | Visual and olfactory inspection of infrastructure to identify sourceSurface emissions survey undertaken to identify point sourcesSealing of the gas extraction system pipework.Odour neutralisation techniques |
| Leachate Treatment Plant | Visual and olfactory inspection of infrastructure to identify sourceAs necessary, remediation/sealing of any leachate management system pipeworkOdour neutralisation/masking techniques |
| **Linear Sources** | **Typical Remedial Action** |
| Settlement Cracks in the capping layer | Visual and olfactory inspection of infrastructure to identify sourceSurface emissions survey undertaken to identify point sourcesSealing of cracks using impermeable materials to appropriate standards |
| Exposed stone drainage blanket | Visual and olfactory inspection of infrastructure to identify sourceSurface emissions survey undertaken to identify point sourcesTipping managed in accordance with waste tipping plan to minimise exposed stone drainage blanket Covering of exposed stone drainage blanket with waste /cover materials / geotextileInstallation of plug/flap in stone drainage blanket to prevent gas migration  |
| In-waste haul road | Sealing of the pathway using appropriate thickness of waste and/or fines or engineering works.Where the haul road is permanent, it should be lined with geotextile. |
| **Area Sources** | **Typical Remedial Action** |
| Exposed areas of waste | Minimisation of the size of the working area, immediate compaction of waste and the placement of appropriate cover materialsOdour neutralisation techniquesRestriction or refusal of particularly odorous waste streams |
| Uncapped areas and cell flanks | Tipping managed to minimise open areas Complete covering of waste with inert cover materialsProgramme of temporary capping to following completed areas as soon as reasonably practicable.Odour neutralisation techniquesCapping programme agreed with Environment Agency |
| Tipping against temporary capping | Area to be punctured to be minimised, typically to include strips of 10m between gas extraction, are to be 1m lift.Odour check to be undertaken to assess impact.Waste to be placed against punctured area.Waste to be covered. |

The success of any remedial measures will be assessed via the routine monitoring, whereby any additional points to be visited will be added to the checklist upon instruction from the TCM. Should a remedial measure prove unsatisfactory for any reason, works will continue to resolve the odour problem in agreement with the Environment Agency. A CAR will be raised on COMPAS and appropriate actions will be implemented.

The effectiveness of this OMP should be reviewed at least four yearly or sooner, in the event of a substantiated complaint and/or the Site being identified as the odour source.

## 5.2 Reporting

As detailed above in Section 5.1, a CAR should be raised on COMPAS whereby odour or damage to the infrastructure cannot be collected/remediated within 24 hours.

Where remediation occurs within 24 hours, this should be noted within the site diary.

In the event of a complaint, a CAR should be raised on COMPAS and, the Amenity Spreadsheet should be completed, which is located in: H:\EIR\2.0 EIR Reporting & Comms\2.2 UK Reports\EIR Registers\Amenity Complaints Register.

Where odour is identified to be leaving the Site boundary, the Site Manager and EIR Team should be informed so that the Environment Agency can be notified accordingly, within 24 hours.

## 5.3 Records

Records of the Site daily inspections shall be kept within the Site Daily/Weekly Checks folder.

The Amenity Spreadsheet shall be kept within H:\EIR\2.0 EIR Reporting & Comms\2.2 UK Reports\EIR Registers\Amenity Complaints Register.

COMPAS CARS are automatically saved on the SUEZ IT System.

Daily odour checks, complaints forms and investigations shall be saved within the Odour Folder kept in the site office.

# Appendix A

# Odour Sources and Release Points

## Waste Delivery

|  |  |
| --- | --- |
| **Source Description** | Waste on incoming vehicles |
| **Odorous Materials** | Those identified in WNHP2 01 Waste Types |
| **Release Point** | Access Road, weighbridge, waste tipping area |
| **Odour Description** | Fresh Waste Odour |
| **Intensity at or near point of release** **(0 not detected to 6 extremely strong)** | 3 Distinct / Moderate odour (odour easily detected while walking and breathing normally, possibly offensive)Initially quite intense but the perception rapidly diminishes upon exposure. |
| **Pattern of Release** | Intermittent releases from vehicle movements. Intermittent release from waste tipping area. |

## Landfill Gas

|  |  |
| --- | --- |
| **Source Description** | Landfill gas |
| **Odorous Materials** | Landfill gas; methane, hydrogen sulphide |
| **Containment/ Release Points** | Active tipping areaCapped / temporary capped areas via cracks or inadequate coverLandfill gas management infrastructure; gas collection wells, manifolds, gas engines, flaresLeachate management infrastructure; extraction wells, monitoring wells, siderisers, pipework.In-waste infrastructure, i.e. haul roadsExposed drainage blanket |
| **Odour Description** | Gas odour |
| **Intensity at or near point of release** **(0 not detected to 6 extremely strong)** | 1 to 6 – Very Faint to Extremely strong |
| **Pattern of Release** | Intermittent |

## Leachate Storage, Transfer & Treatment

|  |  |
| --- | --- |
| **Source Description** | Leachate Storage, transfer and treatment |
| **Odorous Materials** | Leachate |
| **Release Point** | Leachate Treatment Plant, leachate lagoon (to be commissioned on completion of the LTP), leachate outbreak, leachate pipework, leachate pumps |
| **Odour Description** | Leachate Odour |
| **Intensity at or near point of release** **(0 not detected to 6 extremely strong)** | 1 to 6 – Very Faint to Extremely strong |
| **Pattern of Release** | Intermittent |

# Appendix B

# Odour Monitoring Matrix

# Daily Odour Assessment Report

# Daily Odour Assessment Report Addendum

# Odour Monitoring Matrix

1. **Report Pro-forma -** Odour monitoring should be conducted in accordance with the Daily Odour Assessment Report. All entries should be completed.
2. **Notes on Completing Proforma –** The entry for ‘Ground Conditions’ should record whether the ground is wet or dry, as a result of recent rainfall as this may influence odour dispersion

‘External Sources of Odour’ refers to activities, not associated with the waste management facility being assessed that could be a source of odour.

For entries on ‘Odour Intensity’, ‘Odour Extent’ and ‘Location Sensitivity’, the classification system presented below should be used.

1. **Classification System for Odour Parameters**

**Intensity**

**0** - No odour

**1** - Very faint odour

**2** - Faint odour

**3** - Distinct odour

**4** - Strong odour

**5** - Very strong odour

**6** - Extremely strong odour

**Extent (if no odour detectable, assign 0)**

**0 -** No odour

**1**- Local and impersistent (only detected during brief periods when wind drops or blows)

**2** - Impersistent as above, but detected away from site boundary

**3 -** Persistent, but fairly localised

**4** - Persistent and pervasive up to 50 m from site boundary

**5** - Persistent and widespread (odour detected >50 m from site boundary)

**6** -Extremely persistent and widespread (odour detected >250 m from site boundary)

**Sensitivity of Location where Odour Detected (if no odour detectable, assign N/A)**

**N/A** (Not applicable) – no odour detected

**Very low** – e.g. no receptor nearby

**Low** – e.g. footpath, road

**Medium** – e.g. industrial or commercial workplaces

**High** – e.g. housing, pub, hotel

# Daily Odour Assessment Report

|  |  |  |  |
| --- | --- | --- | --- |
| **Site Name** | Whinney Hill | **Assessment Date** |  |
| **Assessment Start Time** |  | **Plan attached showing location and Extent of Odour?** | Yes / No |
| **Assessment Finish Time** |  |
| **Weather (General Description)**  |  | **Wind (Strength and direction from)** |  |
| **Temperature (°C)** |  | **Atmospheric Pressure (mbar) (rising/falling)** |  |
| **% Cloud Cover** |  | **Ground Condition (wet/damp/dry)** |  |
| **Additional comments / Actions required** |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Location** | **Odour Intensity** | **Odour Extent** | **Location Sensitivity** | **Odour Description (Type of Smell – Is it Constant?)** | **External Source of Odour?** | **Site Source of Odour?** |
| Eastern Site Boundary |  |  |  |  |  |  |
| Whinney Hill Road |  |  |  |  |  |  |
| Whinney Hill Road |  |  |  |  |  |  |
| Leachate Treatment Plant |  |  |  |  |  |  |
| Park Royal Entrance |  |  |  |  |  |  |
| Whinney Hill Road Bend |  |  |  |  |  |  |
| Footpath |  |  |  |  |  |  |
| Whalley Road Traffic Light |  |  |  |  |  |  |
| Northern Boundary M65 |  |  |  |  |  |  |
| Printworks |  |  |  |  |  |  |
| Leachate/gas monitoring infrastructure (active cell), haul road/ exposed drainage blanket |  |  |  |  |  |  |
| Additional points selected by TCM (If necessary) |
| 11. |  |  |  |  |  |  |
| 12.  |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **Odour Intensity**  | **Odour Extent (assuming odour detectable, if not then 0)** |
| 0 – no odour | 0 – No odour |
| 1 –Very faint odour  | 1 -Local and impersistent (only detected during brief periods (wind drops/blows |
| 2 -Faint odour (barely detectable, need to stand still and inhale facing into the wind)  | 2 -Impersistent as above, but detected away from site boundary |
| 3 –Distinct/Moderate odour (odour easily detected while walking and breathing normally, possibly offensive)  | 3 -Persistent, but fairly localised |
| 4 -Strong odour (bearable, but offensive odour - will my clothes/hair smell?)  | 4 -Persistent and pervasive up to 50 m from site boundary |
| 5 -Very strong odour (this is when you really wish you were somewhere else)  | 5 -Persistent and widespread (odour detected >50 m from site boundary) |
| 6 – Extremely strong odour | 6 –Extremely persistent and widespread (odour detected >250 m from site boundary) |

|  |
| --- |
| **Location Sensitivity (assuming detectable, if not then N/A)** |
| N/A (Not applicable) – no odour detected |
| Very low – e.g. no receptor nearby |
| Low – e.g. footpath, road |
| Medium – e.g. industrial or commercial workplaces |
| High – e.g. housing, pub, hotel |

**Reported to Site Manager Yes / No**

**Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_(Supervisor)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Site Manager)**

# Daily Odour Assessment Report (Addendum)

# Active Area or Tipping Against Temporary Cap

### To be appended to daily site odour check

|  |  |  |  |
| --- | --- | --- | --- |
| **Assessment Start Time** |  | **Assessment Finish Time** |  |
| **Additional Comments** |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Location** | **Odour Intensity** | **Odour Extent** | **Location Sensitivity** | **Odour Description** | **External Sources of Odour** | **Waste Sources of Odour** |
| 1 At area punctured |  |  |  |  |  |  |
| 2.On the crest of the temp cap |  |  |  |  |  |  |
| 3.25 m north |  |  |  |  |  |  |
| 4.25m south |  |  |  |  |  |  |
| 5.25m west |  |  |  |  |  |  |

|  |  |
| --- | --- |
| **Odour Intensity**  | **Odour Extent (assuming odour detectable, if not then 0)** |
| 0 – no odour | 0 – No odour |
| 1 –Very faint odour  | 1 -Local and impersistent (only detected during brief periods (wind drops/blows |
| 2 -Faint odour (barely detectable, need to stand still and inhale facing into the wind)  | 2 -Impersistent as above, but detected away from site boundary |
| 3 –Distinct/Moderate odour (odour easily detected while walking and breathing normally, possibly offensive)  | 3 -Persistent, but fairly localised |
| 4 -Strong odour (bearable, but offensive odour - will my clothes/hair smell?)  | 4 -Persistent and pervasive up to 50 m from site boundary |
| 5 -Very strong odour (this is when you really wish you were somewhere else)  | 5 -Persistent and widespread (odour detected >50 m from site boundary) |
| 6 – Extremely strong odour | 6 –Extremely persistent and widespread (odour detected >250 m from site boundary) |

|  |
| --- |
| **Location Sensitivity (assuming detectable, if not then N/A)** |
| N/A (Not applicable) – no odour detected |
| Very low – e.g. no receptor nearby |
| Low – e.g. footpath, road |
| Medium – e.g. industrial or commercial workplaces |
| High – e.g. housing, pub, hotel |

**Completed By\_\_\_\_\_\_\_\_\_\_\_\_\_\_TCM Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **Additional Measures Required by TCM** |  |

# Appendix C

# Odour Complaint Report Form

|  |  |  |  |
| --- | --- | --- | --- |
| **Site Name** | Whinney Hill | **Date/Time of Complaint** |  |
| **Details of Complainant****Name****Telephone Number** |  | **Location of odour** |  |
| **Date/time of odour complaint** |  | **Description of odour (type of smell)****(Intensity)****Duration (time)****Constant/Intermittent?****Other comments?** |  |
| **Weather (General Description)**  |  | **Wind (Strength and direction from)** |  |
| **Temperature (°C)** |  | **Atmospheric Pressure (mbar) (rising/falling)** |  |
| **% Cloud Cover** |  | **Ground Condition (wet/damp/dry)** |  |
| **Additional comments / Actions required****Any other similar complaints received?** |  |
| **Details of activity onsite at time of odour** |  |
| **Date of investigation conducted** |  |
| **Actions Taken:** |  |
| **COMPAS CAR Reference Number:** |  |

**Reported to Site Manager Yes / No**

**Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_(Supervisor)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Site Manager)**

Once complete, this form should be sent to the Environment Agency together with the Completed Odour Investigation Report Form.

# Appendix D

# Odour Investigation Report Form

|  |  |  |  |
| --- | --- | --- | --- |
| **Site Name** | Whinney Hill | **Investigation Date** |  |
| **Investigation Start Time** |  | **Plan attached showing location and Extent of Odour?** | Yes / No |
| **Investigation Finish Time** |  |
| **Weather (General Description)**  |  | **Wind (Strength and direction from)** |  |
| **Temperature (°C)** |  | **Atmospheric Pressure (mbar) (rising/falling)** |  |
| **% Cloud Cover** |  | **Ground Condition (wet/damp/dry)** |  |
| **Additional comments / Actions required** |  |
| **Date of close out agreed with the Agency and/or additional actions as agreed with the Agency** |  |

**Reported to Site Manager Yes / No**

**Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_(Supervisor)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Site Manager)**

Once complete, this form should be sent to the Environment Agency together with the Completed Odour Complaint Report Form.

# Figure 1

# External Sources of Odour

# Figure 2

# Daily Odour Monitoring Locations