

WITHYHEDGE WASTE TRANSFER STATION

ODOUR MANAGEMENT PLAN

DECEMBER 2015

Prepared for:

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DOCUMENT CONTROL SHEET

PROJECT:	**WITHYHEDGE WASTE TRANSFER STATION**
TITLE:	**ODOUR MANAGEMENT PLAN**

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WITHYHEDGE WASTE TRANSFER STATION

ODOUR MANAGEMENT PLAN

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1.0 SITE DESCRIPTION AND SPECIFIED WASTE MANAGEMENT OPERATIONS

Resources Management UK Limited proposes to operate a Waste Transfer Station (WTS) at Withyhedge near Haverfordwest. The site address is: -

Withyhedge Material Recycling Facility
Rudbaxton
Haverfordwest
Pembrokeshire
SA62 4DB.

The hours of operation for the facility are outlined below: -

Monday – Friday (including Bank Holidays)	07:00 – 17:00
Saturday	07:00 – 12:00
Sunday	Closed

This report is being submitted as part of the application process for a normal variation to the existing Environmental Permit (reference EPR/QP3098FL).

The Waste Transfer Station will have an annual permitted throughput of 150,000 tonnes of waste per annum.

The application for the variation includes adding the following Environmental Waste Codes to the Permit for the new Waste Transfer Station activity: -

- 19 12 05 – glass;
- 19 12 12 – other wastes from mechanical treatment of wastes;
- 20 03 01 – mixed municipal waste;
- 20 03 07 – bulky waste.

No hazardous waste will be accepted at the site.

MRF fines will be accepted at the Waste Transfer Station and bulked prior to the transfer to landfill.

2.0 SITE LAYOUT AND EQUIPMENT

A layout drawing for the Waste Transfer Station is included in Appendix A of this document.

No fixed equipment will be utilised on site, although a loading shovel, tractor and trailer will be used to transport waste to landfill.

2.1 Process Overview

2.1.1 Delivery and Removal

During site opening hours, waste will be delivered to the site by residual waste collection vehicles and bulk transport vehicles.

Upon entering the site, all vehicles will be weighed at the weighbridge and then be directed to unload waste on to the concrete pad.

The operation will involve the brief holding of waste from unloaded collection vehicles prior to being reloaded onto transport vehicles from where it will be transported to landfill or Pembroke Dock Material Recycling Facility.

The maximum time between the unloading and reloading of waste will be 4 hours.

If material requires bulking, this will be undertaken in designated bays.

Waste that arrives at site with an unacceptably high odour will not be accepted. This will be recorded in the site diary.

Safe systems of work will be in place to ensure that loading and unloading of waste into and out of the processing plant is undertaken in an appropriate manner to minimise risk of accident or incident.

2.1.2 Accepted Waste Types

Only waste categorised under Environmental Waste Codes 19 12 05, 19 12 12, 20 03 01, 20 03 07 will be accepted at the Withyhedge Waste Transfer Station. The description of each waste type is given below: -

19 12 05 - Glass;
19 12 12 - Other wastes from mechanical treatment of wastes;
20 03 01 - Mixed municipal waste (consisting of general ‘black bag’ waste or Household Waste Recycling Centre residual waste only);
20 03 07 - Bulky waste.

The maximum amount of waste that will be accepted at the site is 150,000 tonnes per year.

2.1.3 Processing

Black bag waste will require bulking until sufficient quantity has been accumulated for economical transportation to Pembroke Dock Material Recycling Facility.

Likewise, glass and MRF fines will be bulked before onward transportation to Withyhedge Landfill.

All other material will be transferred straight to Withyhedge landfill, with no processing undertaken.

3.0 PUBLISHED GUIDANCE

This Odour Management Plan has been prepared in consideration of the following guidance documents: -

- NRW – Odour Management Plans for waste handling facilities;
- H4 – Horizontal Odour Guidance.

This management plan is based on the Source – Pathway – Receptor model which aims to control risks at source by implementing effective and robust control measures.

It is acknowledged in guidance notes that the assessment and control of odour can be difficult due to dispersal and the episodic nature of odour events. Assessments are therefore usually based on conservative worst case scenarios and are not a reflection of the preventative measures in place at the site.

The guidance states that the Best Available Technology (BAT) is often site-specific and can be determined by the controls necessary to meet benchmark odour concentrations at ground level at sensitive receptors.

3.1 Objectives

The aim of this document is to provide a summary of appropriate physical and management controls that will be employed to minimise the odour release at the Withyhedge Waste Transfer Station Site. It provides a site specific assessment of the potential sources of odour, the pathways odour can take from the site and the receptors which could be impacted.

Where a source or pathway has been identified, mitigation measures to prevent or control fugitive odour emissions are discussed.

4.0 SOURCE PATHWAY RECEPTOR

4.1 Odour Source Characterisation

Following review of the proposed operational process to be undertaken at the Withyhedge Waste Transfer Station facility and the wastes which will be accepted at the site as outlined in section 2.1, the following sources of odour are considered to be applicable for the facility: -

4.1.1 Odours from unloading and processing of untreated wastes

Unprocessed material will be unloaded and bulked in exterior bays. Mixed municipal waste (EWC 20 03 01) will include general 'black bag waste' which may contain food waste, which therefore has the potential to generate odour.

If a delivery arrives with an unacceptable odour then the load will be rejected, and this will be recorded in the site diary.

Regular clean-ups and checks from the Site Supervisor will help maintain the condition of the site to an appropriate standard.

Waste will be transported to landfill as soon as possible; no waste will be stored any longer than 4 hours, with all received waste sent for onward transport by the end of the working day.

4.1.2 Odours from onward transport

Vehicles transporting waste to either the Withyhedge landfill or Pembroke Dock will be appropriately sealed to ensure no release of any potentially offensive odours.

Checks will be made by the Site Supervisor to ensure no loads are leaving the site in an unacceptable condition.

For both potential sources, containment at source is the primary method for reducing and preventing release of odorous emissions.

4.2 Odour Pathway Characterisation

The principal mechanism for the transit of odorous emissions from the site operations to adjacent sensitive receptors is via ambient air. The distance any emissions are carried and the degree of dispersion will be determined by the meteorological conditions and topography.

Any odour emissions will be influenced by the prevailing wind direction at the site, which is from the west.

Wind velocity will affect the distance an odour emission will travel. However, increased wind speed could also beneficially improve dispersal. The receptors that are closest to the installation however remain at the highest risk of adverse impact.

4.3 Odour Receptor Characterisation

Locally sensitive receptors can be characterised as follows: -

- Settlement of Spittal – located 0.94 miles to the Northeast;
- Settlement of Rudbaxton – located 0.68 miles to the South;
- Haverfordwest airport; located 1.10 miles to the South;
- Site operational staff;
- Surrounding farms.

4.4 Control Measures

The Site Manager will be responsible for ensuring the potential for odour generation at the facility is monitored and managed effectively.

Prevention will be viewed as the most effective means of controlling odour before any impact occurs. The source – pathway – receptor model outlined in the proceeding sections has identified two potential sources from the site which could impact on nearby sensitive receptors.

4.4.1 Odours from unloading and processing of untreated wastes

Odours associated with the untreated material will be controlled to an acceptable level by ensuring the following measures are implemented: -

- Wastes will be delivered to the site in appropriately covered or sealed vehicles, and only deposited in designated areas;
- All unprocessed material delivered to the site that requires bulking will be done so as soon as possible for onward transport to landfill;
- All incoming loads will be inspected by either the Site Manager or Supervisor. If a delivery arrives with an unacceptable odour then this will be refused entry, and will be recorded in the site diary;
- A high-standard of house-keeping will be adopted particularly with the general black bag waste. Any spillages will be cleared promptly, and any loose material will be cleaned from on or under plant structures at least weekly to avoid the build-up of anaerobic material;
- The bulked wastes will be regularly inspected for damage or pest infestation. The inspections will ensure that integrity of the bulked waste is not compromised which could increase the potential for odour emissions;
- As the processing areas will be emptied at the end of every day, then the floor will be cleaned and washed on a regular basis to prevent the accumulation of anaerobic material and leachate.

4.4.2 Odours from onward transport

Odours associated with the onward transport of waste will be controlled to an acceptable level by ensuring the following measures are implemented: -

- Daily and weekly site inspection checklists are in place, which include subjective assessments by the site manager regarding any odour generation from the facility. Any observations are noted in the site diary and checklists along with the meteorological data for each day;
- Vehicles transporting waste to either the Withyhedge landfill or Pembroke Dock will be appropriately sealed to ensure no release of any potentially offensive odours. If a vehicle is transmitting unacceptable odours then this will be remediated before being sent to site with a de-odourising spray;
- Regular checking and sweeping of the transport route will be undertaken to ensure that no deposits of anaerobic material are allowed to accumulate;
- All equipment will be maintained as per the manufactures guidelines, and cleaned regularly.

4.5 Odour Monitoring

Odour monitoring is the primary mechanism by which any impact from the facility will be quantified and recorded.

The Site Manager will be responsible for ensuring that monitoring is conducted at the facility, identifying any sources of odour and to establish whether any odours are discernible.

Monitoring will be conducted a minimum of once per week. All odour monitoring will start at the upwind location on the day as determined by prevailing wind conditions.

Olfactory monitoring will be undertaken along the site perimeter and at offsite nearby sensitive receptors, the locations of which are shown in drawing 240-01-11-15.d01 included in Appendix A.

All off-site olfactory monitoring will also be carried out with reference to the protocol in Appendix 1 of the H4 Technical Guidance Note, with an odour assessment form being completed. Results will also be recorded in the daily site checklist and odour diary, copies of which are included in Appendix B.

4.6 Complaints Management and Reporting

Following the receipt of any complaints, the Site Manager will complete an Odour Complaint Form and implement the site Odour Investigation Plan.

A copy of the odour complaint form is included in Appendix C. The site odour investigation plan is discussed below.

4.6.1 Odour Investigation Plan

Once a complaint has been made and received an employee from the Pembroke Dock waste site will be sent out to detect odours at each of the 5 regular monitoring points as shown in drawing 240-01-11-15.d01.

The reason an employee from Pembroke Dock will be utilised is to limit the possibility that the assessor has become acclimatised to any odours generated by the Withyhedge site.

The odour diary utilised for regular monitoring will be filled in for each point.

Where unacceptable levels of odour emissions from the facility are identified, potential corrective and preventative actions will be investigated and implemented where possible.

NRW will be notified of all complaints received and provided with copies of the Investigation forms.

4.7 Contingency Control Measures in the event of incidents or emergencies

The primary incidents that could impact odour at the site are outlined below: -

- Loss of process control;
- Plant Breakdown.

4.7.1 Loss of process control

The machinery at the site could experience a malfunction which results in a loss of process control.

Daily and weekly inspections will be undertaken at the site to ensure that machinery is running correctly. All machinery will be maintained in accordance with the manufacturer's guidelines.

Site machinery is also fitted with emergency stop features that can be activated in case of an incident or emergency. Furthermore, as the waste requires manually loading into process machinery, the supply of waste into the machines can be stopped quickly in the event of an incident or emergency.

The risk of loss of process control resulting in an odour impact is therefore low, with any impact likely to be minor and short term.

4.7.2 Plant Breakdown

The machinery at the site could break down resulting in the need to halt processing of waste at the site.

Daily and weekly inspections will be undertaken at the site to ensure that machinery is running correctly. All machinery will be maintained in accordance with the manufacturer's guidelines.

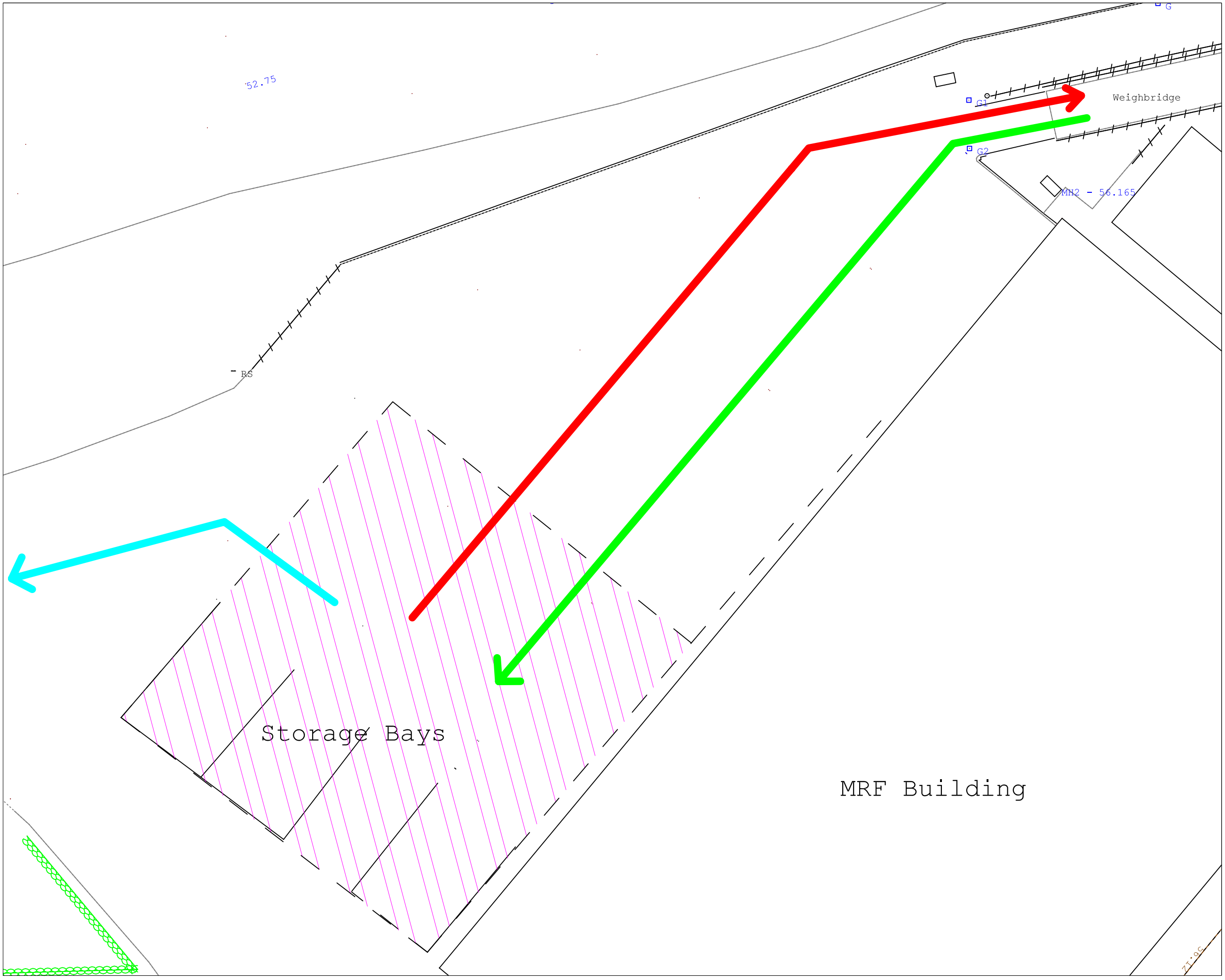
Where machinery is unlikely to be fixed within an appropriate timeframe, waste deliveries to the site will be diverted.

If 6 hours after the initial breakdown, the machinery has not been repaired, a new machine (e.g. loading shovel) will be brought in if necessary to continue processing the waste while the broken machinery is repaired.

NRW will be informed of any process machinery breakdowns and kept informed daily of monitoring results, any complaints received and progress with fixing the machinery.

APPENDIX A

Drawings



Notes: A3

Concrete pad and storage bays

Waste delivery via weighbridge

Black bag waste transferred to Pembroke Dock MRF

Other waste transferred to Withyhedge landfill

Job:
Waste Transfer Station - Normal Variation

Title:
Waste Transfer Station Site Plan

Date:	October 2015
Scale:	NTS
Drawn by:	CG
Checked by:	SW

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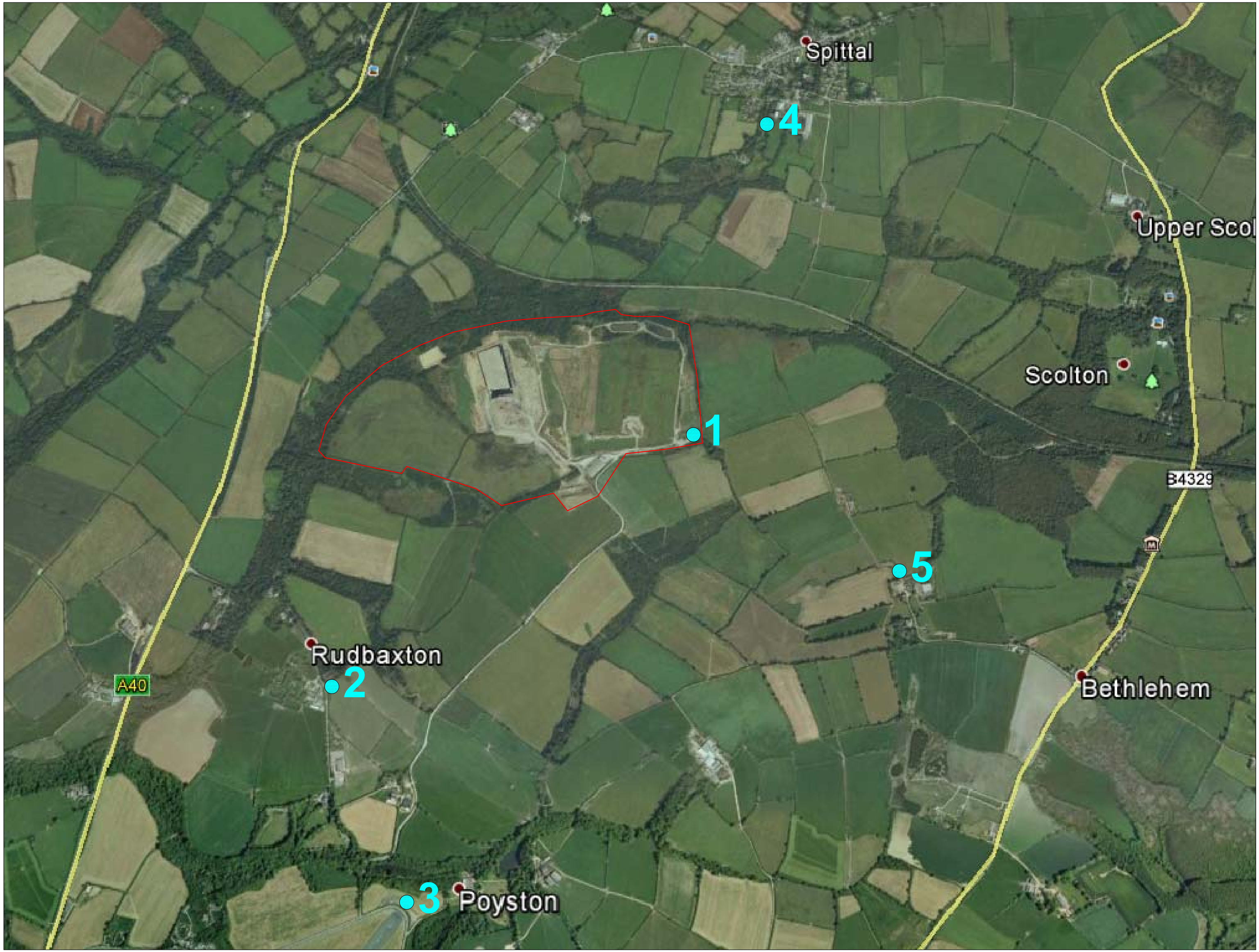
Drawing No:	240-01-11-15.D01
Revision No:	**Date:**



Notes:	A3

Site boundary

1 Monitoring Point

Job:
Odour Management Plan

Title:
Olfactory monitoring locations

Date:	September 2015
Scale:	NTS
Drawn by:	CG
Checked by:	SW

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Drawing No: 240-01-11-15. D01

Revision No:	**Date:**

APPENDIX B

Site Inspection Checklist Templates

Daily Diary

PotterGroup

Site:	By:

Day:	Date:	Weather:

Staffing levels

Staff present	
No. agency staff	
Appointed person (1st aid)	
Team Leader	

COTC holder on site

Initials			
Time in			
Time out			

Daily checks-any issues e.g. broken/damaged signs, damage, etc.

	Reported
	Y/N
	Y/N
	Y/N
	Y/N
	Y/N

Site inspections/audits (EA,CCC etc.)

Type of inspection	Name	Time in	Time out	Comments	Reported
					Y/N
					Y/N
					Y/N
					Y/N

Accidents/emergencies

Compliments/comments/complaints

Contractors on site-maintenance, repairs, etc.

Further comments

Daily/Weekly Site Inspection

Site: Pembroke Dock **Week Commencing:**

TCM Minimum Attendance Required: **TCM Attendance (hours/week):**

Inspected items	Frequency	Mon	Tues	Wed	Thur	Fri	Sat	Sun
Person Completing the checklist	Daily Initials							
All Facilities								
Condition of site ID Board & signs	weekly							
Condition of Access, site road & hardstanding	weekly							
Condition of Waste reception area & Operational area	weekly							
Site building & welfare	weekly							
Waste type, Quantities & storage	daily							
Waste acceptance/inspection & Duty of care	daily							
Condition of Fencing, Gates & security	daily							
Condition of all waste containers, on shared site this includes any containers left by logistics	daily							
Condition of lighting system	daily							
Condition of fuel & storage tanks, inc containment system	daily							
Other liquid storage: Availability of spillage kit	daily							
Fire; Availability of emergency equipment (inc vehicles)	daily							
Surface water Management e.g. Drainage system	daily							
Control of litter inc fly tipping	daily							
Control of odour – morning check If no odour x if odour and investigate with details on reverse	Once/twice							
ADDITIONAL CHECK TO BE IMPLEMENTED IF ODOUR COMPLAINT RECEIVED AND CONTINUED FOR 1 MONTH AFTER LAST COMPLAINT – control odour – afternoon check if no odour x if odour and investigate with details in reverse	Daily as Appropriate							
Odour suppression system operating satisfactorily	daily							
Control of dust	daily							
Control of noise	daily							
Control of birds & rats	daily							
Control of flies (*record spraying and any problem load on reverse)	daily							
Wind direction	daily							
Have any inspections occurred (e.g. regulator) or samples taken (e.g. discharge monitoring) if regulator scored received	As inspected							

Daily/Weekly Site Inspection

Site: Pembroke Dock **Week Commencing:**

Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Comments

CoTC Signature:_____ Date:_____

APPENDIX C

Odour Complaint Form

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: o What does it smell like?	
o Intensity (see below):	
o Duration (time):	
o Constant or intermittent in this period:	
o 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

0 No odour
1 Very faint odour
2 Faint odour
3 Distinct odour
4 Strong odour
5 Very strong odour
6 Extremely strong odour