



**Great Billing Waste Transfer Station
Odour Monitoring Scheme**

Odour Monitoring Scheme

1. Introduction

This odour monitoring scheme relates specifically to the Planning Permission NCC Ref: 12/00075/WASFUL, condition No: 15.

“Within three months of the date of this permission the operator shall submit in writing to the Waste Planning Authority for approval a scheme for odour monitoring. The scheme shall include a programme for olfactometry testing between April 2013 and September 2013 to assess the actual odour impacts of the import and sorting of municipal solid waste. The scheme shall also include proposals for removing, reducing or mitigating any identified adverse effects resulting from the importing and sorting of municipal solid waste. The scheme shall be implemented as approved.”

2. Site setting

The site is a waste transfer station located off of Lower Ecton Lane, Great Billing, Northamptonshire, NN3 9BX. The site forms part of the Anglian Water Waste Water Treatment Works, which extends predominantly to the South and West of the site, this is also a potential source of Odour. There are several other waste facilities in the area including Household Waste Recycling facility operated on behalf of Northamptonshire County Council on Lower Ecton lane and recycling facilities operated in other parts of the Anglian Water site all these sites have the potential to produce polluting odour.

3. Potential Odour Receptors

Nine representative receptors were identified by the Odour Assessment in December 2012:

1. Bulk Oil Facility	147m WSW	Industrial
2. Traveller site	127m NW	Residential
3. Ecton Drive Primary School	326m NNW	School
4. A45 Service Station	530m NE	Commercial
5. Pennycross Place	413m NW	Residential
6. Station Road	523m WNW	Residential
7. Crow Lane	484m SW	Residential
8. Builders Merchant	768m SW	Commercial
9. Fayre and Square	875m SW	Commercial

The site is located on an area of land immediately alongside the Great Billing waste water treatment works (WwTW) to the southeast of Great Billing and in the eastern outskirts of Northampton. The WwTW is located within a strip of land between Lower Ecton Lane to the north and the River Nene and associated lakes and ponds (former sand and gravel workings) to the south. A newly constructed sludge treatment facility associated with the WwTW lies to the immediate west of site.

Other industrial facilities in the area include two further waste transfer stations and recycling facilities and a bulk fuel storage facility. Sand and gravel workings and a roadstone coating plant are located to the south alongside the River Nene.

The nearest residential development to the site is a caravan park (traveller's site) located 135m to the northwest of the site off Lower Ecton Lane. Ecton Brook Primary School and further residential development is located off Ecton Brook Road 350m to the north/northwest beyond the A45. A row of terraced houses are located about 485m to the southwest on Crow Lane with a hotel and public house 795m distant. The village of Ecton lies 1.4km to the northeast.

4. Site Overview and Operations

The facility currently comprises an area of 0.43ha housing a single 3-sided steel clad building with a weighbridge and office/welfare facilities. The building is open on the southern side. The facility currently receives commercial and industrial (C&I), construction and demolition (C&D) and inert wastes. The commercial and industrial wastes are delivered to site in waste collection vehicles and are off loaded onto the floor of the building. These C&I wastes include 'black bag' waste containing some putrescible and food waste. The C&I wastes are re-loaded into 8 wheel tippers or skips for delivery to Mick George waste management facility at Rushton. The C&D wastes are delivered to site in skips and off-loaded into the site building. These C&D wastes may be subject to a degree of sorting prior to collection for off-site delivery. Excavation wastes comprising soils and stones are stockpiled externally (soils, stones etc).

All the C&I wastes are generally removed off-site within 24 hours of delivery and where possible on the same day of receipt. These wastes currently handled at the facility have the potential to generate odours due to the presence of putrescible wastes.

Activities on the site have the potential to produce odours through the handling and storage of C&I wastes that contain food and other degradable materials. Appropriate handling techniques and practises will reduce odour pollution.

Some of the material delivered to site will be unsorted residential waste. As such the material may be up to two weeks old. The material is however expected to have a reduced putrescible content due to at source separation and recycling of vegetable matter. The waste will be delivered to the site in enclosed refuse collection vehicles. The material will be transferred to the floor of the building, and subsequently into large enclosed vehicles using a front loader. The greatest potential for odour release will therefore be during the agitation of the material during handling and loading operations, and to a lesser extent during storage. The material will not undergo any form of treatment, such as shredding or screening, that would result in a greater risk of odorous releases. Waste storage on site will be limited to a maximum of 24 hours minimising the potential for the material to degrade and become odorous.

The building is not contained or sealed and as such odour releases will primarily be via fugitive emissions via the open side to the south, and the open windows on the northern building site.

5. Emissions Monitoring Scheme

Condition no.15 requires a detailed monitoring scheme to be in place for the site to assess the impact of site operations. This assessment will take place between April and September 2013.

Odour Assessment

Odour assessment at site will consist of daily sniff tests and periodic assessment by an experienced odour assessor.

Sniff tests of the odour around the boundary of site will be made 3 times a day. Once at the start of the day, once daily during off-loading or loading operations and once towards the end of the day to ensure odours are absent during the hours that the site is closed. A daily record will be maintained. The sniff test will be conducted with due regard to the H4 Odour Management document from the Environment Agency. The assessor will have experience of the likely odours caused by site operations, and will establish if any such odours are traveling to the site boundary. If odours are perceived at the site boundary as anything more than a "faint odour" (see H4 guidance) this will be considered a failed odour assessment. The site supervisor will review site operations and employ the necessary odour control methods to reduce the odour. If two successive undesirable odour events occur then an odour investigation will be instigated, in line with the response to an odour complaint. This will aid in the assessment of odours from the site.

Assessment every two months for the period will be made by an appointed odour assessor as requested by the planning authority. The assessment will look at the odours emanating from site, the possible impact of these odours and impact in relation to other odour sources in the area. These assessments will be detailed in an appropriate report format.

Odour Investigation

The odour investigation will be conducted if a complaint is received or if two subsequent failed daily assessments. The site supervisor or nominated site representative will conduct the assessment. If this person is unable to identify the source of the odour or site requires assistance then another trained member of staff, such as the company monitoring technician, will conduct the investigation.

An investigation will consist of sniff testing on site and at relevant receptors to establish the intensity of the odours. Relevant receptors are those downwind at the time. All observations and findings, including wind and other weather conditions, will be noted on the investigation form.

Odour control methods as detailed in section 6 will be used to prevent off site issues.

Records for any investigations will be kept and will be made available on request.

Odour Complaint Response

Odour complaints will be responded to swiftly in accordance with the Odour Investigation procedures. All complaints received will be logged including all relevant details. All complaints received regardless of how they are received e.g. at the companies Head office

or via site personnel, will be passed immediately to the site supervisor for investigation. The site supervisor will be responsible for ensuring that all necessary action is taken in response to a complaint.

Any complaints that are not received in a timely manner that precludes investigation will be considered as unsubstantiated where the daily assessments do not confirm any issues on site that day.

6. Odour Control Methods

The aim of the Odour Monitoring Scheme is to assess the impact of site operations during a 6 month period (April-September 2013). As part of this it is necessary to;

“include proposals for removing, reducing or mitigating any identified adverse effects resulting from the importing and sorting of municipal solid waste”

Due to the inherent difficulty in managing odours beyond the site boundary, management of the site will concentrate on monitoring and preventing odours leaving the site.

Removal

- Quantity of waste stored on site will be minimised and rapid turnaround of material will be maintained
- Waste acceptance procedures will be employed by site staff , the site supervisor has authority to refuse loads which are considered likely to cause an odour nuisance to our neighbours
- Suspension of operations in exceptional circumstance while any issues are remedied

Reduction

- Handling and disturbance of deposited wastes will be kept low to minimise odour release
- Sheeting of loads into and out of site to prevent spillage of materials beyond the site boundary
- Good housekeeping of the site and plant to prevent build up and degradation of waste

Mitigation

- Consideration of site activity in relation to weather conditions on site – particularly where they are likely to either cause odours eg warm weather or likely to carry odours to sensitive receptors eg wind speed and direction.
- Use of on site odour suppression system as necessary
- Alteration and update of relevant site procedures as required to ensure the most suitable techniques are being used

See also section 7 of the Odour Assessment (December 2012).

7. Maintenance

Any malfunction or breakdown leading to abnormal odour generation, e.g. the loading shovel preventing off site delivery of material will be dealt with promptly and all delivery of material to the site will be modified or suspended until normal working can be restored. All such malfunctions will be recorded in the site diary.

8. Site Management

The site supervisor will exercise, either personally or by delegation to suitably trained and responsible staff, day to day control on the site. The site supervisor will be responsible for ensuring full compliance with any planning permission which may be issued and with the odour management scheme.

Specifically the site supervisor will be responsible for:

- Incoming and outgoing vehicle movements
- Loading, tipping and material handling operations
- Inspection and cleaning of departing transport
- Inspection, cleaning and maintenance of all plant
- House-keeping
- Record keeping, and
- Satisfactory working of the whole site
- Odour monitoring

Staff at all levels will receive the necessary training and instruction in their duties relating to control of all operations and the potential sources of odour emissions.

9. Odour Monitoring April – September 2013

Following completion of the 6 month monitoring period the results will be reviewed.

If no on-going issues have been highlighted then daily monitoring will be revert back to a daily overall check with any issues noted for that specific day. Issues will still be investigated and necessary operational measures taken.

Should analysis of monitoring results suggest that there is an on-going issue with odour on site then a review of site operating and management procedures will be made to prevent further issues. Further assessment may then be required to ensure that suitable controls are in place.

Complaints will continue to be logged, the Odour Investigation Form will be used where it is deemed relevant.

Odour Investigation Form

To be used in response odours emanating from site and for any complaint regarding odour

Odour Report					
Name					
Site					
Date of complaint					
Date/time of odour					
Location of odour					
Weather condition (dry, rain, fog etc)					
Temperature					
Wind strength					
Wind direction					
Location ref					
Location description					
Duration of test (min)					
Intensity (1-5)					
Sensitivity (1-5)					
Offensiveness (1-3)					
Nature of smell					
Potential source					
Comments					

Guide notes

Name	Name of tester
Site	e.g. Great Billing WTS
Date of complaint	Date complaint was made to MGL
Date/time of odour	Date of odour that led to complaint
Location of odour	Location of odour that led to complaint i.e. Ecton School
Weather condition	dry, rain, fog etc
Temperature	Degrees C if known otherwise warm, cold, very warm, mild etc
Wind strength	Beaufort scale 0. Calm (smoke rises vertically) 1. Light air (direction of wind shown by smoke drift, not wind vane) 2. Light breeze (wind felt on face, leaves rustle, ordinary vane moved by wind) 3. Gentle breeze (leaves and small twigs in constant motion) 4. Moderate breeze (raises dust and loose paper; small branches are moved) 5. Fresh breeze (small trees in leaf begin to sway, small branches are moved) 6. Strong breeze (large branches in motion, umbrellas used with difficulty) 7. Near gale (whole trees in motion, inconvenience felt when walking against wind)
Wind direction	From NE S SE etc
Location ref	Commence assessment from upwind and distant location moving towards installation or area of possible stronger odour; mark all locations on plan
Location description	Brief description of site (road name, distance from site etc) Multiple locations may need to be visited in response to an issue with odour (see receptors)
Duration of test	Standard 5 mins per location
Intensity (1-5)	1. No detectable odour 2. Faint odour (barely detectable, need to stand still and inhale facing the wind) 3. Moderate odour (odour easily detected while walking and breathing normally) 4. Strong odour 5. Very strong odour (possibly causing nausea depending on type of odour)
Sensitivity (1-5)	(sensitivity of location where odour detected) 0. No odour detectable 1. Remote (no housing, commercial / industrial premises or public area within 50m) 2. Low (no housing etc within 100m of area affected by odour) 3. Moderate (housing etc within 100m) 4. High (housing etc within area affected by odour) 5. Extra sensitive (complaints arising from residents within area affected by odour)
Offensiveness (1-3)	Take into account strength, persistence and typical frequency of exposure 1. Potentially offensive 2. Moderately offensive 3. Very offensive
Nature of smell	i.e. what does it smell like
Potential source	i.e. site of interest, neighbouring sites such as sewage works, landfill etc
Comments	Any other relevant details or comments