N&P Hartlepool Materials Recycling Facility Ltd.

Odour Management Plan

N&P Hartlepool MRF Ltd.
Thomlinson Road
Longhill Industrial Estate
Hartlepool
TS25 1NS

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1. INTRODUCTION

This plan details the provisions in place to minimise odours arising at the N+P Hartlepool MRF. The site accepts a variety of commercial and industrial wastes, which are sorted for recycling/waste to energy or final disposal. It deals primarily with non-hazardous wastes, which in general present a lower level of risk than hazardous waste, but frequently contain high percentages of organic matter, so odour controls are essential.

2. LOCATION

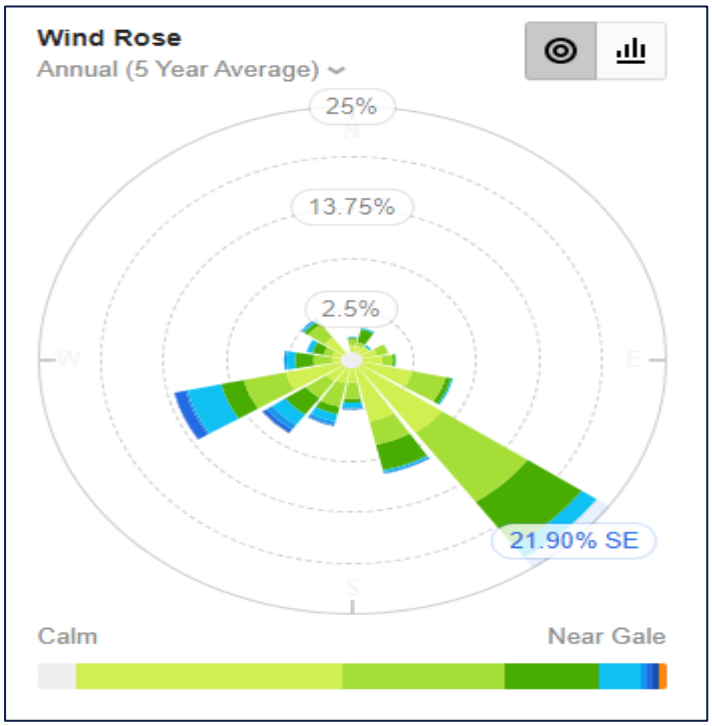
The site is located in an industrial estate, with very frequent goods vehicle traffic operating during normal working hours.

There are no residential properties close to the transfer station activities although commercial businesses are located on the Northern and Western boundaries of the site so these are seen as close receptors and can be effected should environmental controls not be in place, a recent development has resulted in houses being built close to Eastern boundary of the landfill site. This has significantly increased the risk of odour nuisance, and also the number of complaints although with the landfill ceasing to operate from July 2011 the risk of nuisances have greatly diminished .Whilst it is believed that a percentage of these complaints were unfounded or malicious, it is necessary to take the problem seriously; and to take every precaution to minimise odour generation. It is notable that the level of complaints has fallen dramatically with the end of the active phase of landfill operations on site.

All that remains to be carried out on the landfill is restoration works. That can still result in a nuisance relating to noise/odour and dust so controls must be in place prior to works commencing.

The prevailing wind direction in Hartlepool is south-easterly, although there is considerable variation, which is likely to increase with climate change. This means that the housing development built to the east of the site lies downwind for much of the time. Hence it is particularly vulnerable to odour problems should they arise.

Image 2 - Prevailing Wind Direction – Durham and Tees Airport [2]



[2] https://wind.willyweather.co.uk/ne/durham/tees-valley-airport.html

3. IDENTIFICATION OF SOURCES

The following items have been considered as potential sources of odours.

1. Loading, Unloading, and Handling of Wastes
2. Landfill Operations/restoration
3. Fire
4. Waste acceptance
5. Vandalism
6. Vehicle/Plant Operations
7. Maintenance Work
8. Waste processing turnaround
9. Excessive volumes of waste
10. Waste processing practice
11. Poor housekeeping
12. Inadequate site management or auditing

Within the management system, there are procedures for dealing with these issues.

Odour is more likely to be a problem in certain weather conditions. Hot weather will increase the rate of decomposition of the degradable fractions in the waste, while wind strength and direction will determine how likely any odours are to escape the site boundary.

The longer waste is stored prior to processing, the more likely it is that odours can be generated. Therefore, prompt processing of waste is desirable to minimise this effect.

Waste bays ideally should be rotated within 72 hours, and the bay fully cleaned out before allowing more waste to be deposited, jet-washing the bays may be necessary depending on the nature and amount of residues. Photos should be taken of the bays once emptied, to demonstrate compliance with this plan.

If waste volumes are excessive, deploying additional manpower can be considered, either by re-allocating existing personnel, or bringing in agency staff. This can improve waste processing performance, and hence reduce volumes within the bays.

It may be possible to predict when problems are likely to arise (e.g. high winds causing landfill sites to close temporarily, or logistics problems such as roadworks on key routes). In this case, additional manpower or alternative solutions can be organised in advance

Site assessments should be made daily to assess odours at the perimeter boundary and recorded in the Site Diary.

4. RISK ASSESSMENT

The assessment follows below, where the page is set to “landscape” layout to accommodate the data.

Key to Probability Ratings			
1	Very unlikely	4	Likely
2	Unlikely	5	Very likely
3	Possible		

5. MANAGING THE RISK

The significance of odour as a potential issue is recognised in section 5.3 of the Working Plan

Odour arise predominantly from biodegradation of waste, so is best controlled by minimising the residence time of waste. The main source of waste with the potential to generate odour is the general

waste/MMW, which will contain a variable fraction of putrescible material. N+P will aim to ensure that all waste is processed within 72 house of deposition.

However, any load received may contain incidental amounts of potentially odour-generating waste, hence visual inspection of all loads ass they are received, together with constant attention to detecting odours, are essential to avoiding nuisance.

The shredding of general waste will be enclosed which in addition to preventing litter will ensure that any odour that is produced will be contained and will not cause a nuisance to neighbours.

A portable de-odorising system is located on site and can be moved to certain locations on any given day that would benefit the site to control odours leaving the boundary at any location.

Following the installation of the RDF plant all wastes are treated and processed within a building ensuring better environmental control.

Outside conveyors are enclosed to prevent odour release.

Waste acceptance includes an assessment of the odour potential, and those that are known to be malodorous should not be accepted. In the past we have had to reject otherwise acceptable waste, due to possible odour issues. If for any reason a load is deposited and found to be malodorous, it should immediately re-loaded and taken for disposal.

Waste acceptance provides an opportunity to prevent several potential problems, not just odour. The weighbridge operator quickly builds knowledge of various wastes, and can communicate any concerns to the offloading area operators via radio.

Subject to the risk assessments, requirements of operating licences or permits, and other issues, the site operations are subject to control by work instructions called Procedures. These identify the objectives and risks associated with individual areas of the site.

Within the procedures, responsibility for ensuring that they are followed is assigned. They also refer to various records, where collected information is recorded. In addition, monthly internal auditing is carried out, to ensure environmental control this audit also covers health and safety issues.

Staff training also makes reference to the potential nuisances that can arise from our activities, and the obvious amelioration or avoidance tactics that we can employ. While basic training can be given by site managers for many basic tasks, for more demanding work external training is required to ensure that the operator achieves a suitable standard (e.g. plant operation). Employees who fail to comply with work instructions or safe working practice may be subject to disciplinary action.

At any time, a WAMITAB qualified technically-competent person is present on site, with more extensive training regarding site management and good practice that can help avoid odour issues.

Site Managers are required to keep records of their activities (“site diaries”) – where they can record problems or issues that may increase the risk of an accident or nuisance. Management reviews are scheduled regularly, when the recent compliance audits, and any complaints or incidents, are reviewed.

Controlling odour needs to be a co-ordinated process. If all operators perform their work according to instructions, and if the overall processing of waste is coordinated between the various site operations, then the risk should be minimal.

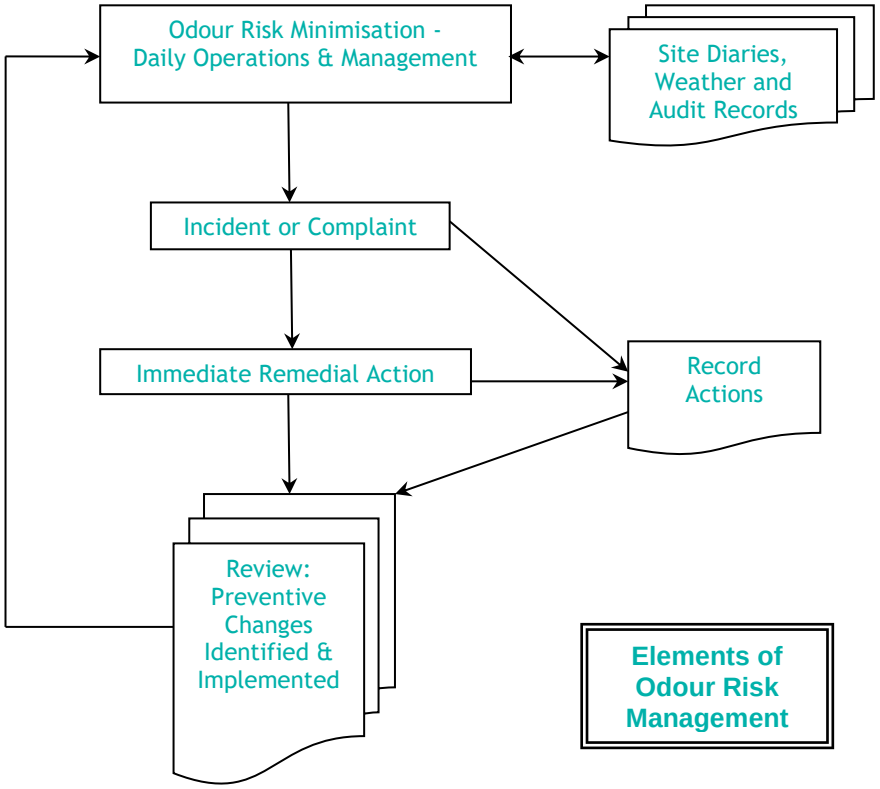
It is understood the waste transfer station has been operating since the 80’s with waste been deposited outside in bays. These areas are for deposit, prior to re-loading or moving to processing areas. The bays are well-maintained to ensure containment.

The refurbished holding bays should provide better containment and control odour, and the increased holding area should make it less likely that waste would be deposited outside the bays for any reason.

Odour-abatement products are available, the site have employed these products and is used in a telescopic system which is mobile and is located in the most appropriate location on a daily basis.

Odour abatement products can also added to the road sweeper tank, to tackle odour arising from mud or spilt wastes on the roadways and entrance area.

Other proprietary odour abatement systems are available, but in general terms it is intended that good management to reduce odour generation is preferable to reducing its effect.



6. IDENTIFICATION OF, AND RESPONSE TO, ODOUR PROBLEMS

The response to an odour problem will depend to some extent upon the nature and location of the source. However, a summary of the process can be presented as follows:

All personnel are expected to be proactive in identifying potential odour problems and immediately informing their line managers.

Managers should be aware of the odour problems that may arise from their operations, and take appropriate measures to minimise the risk, as part of their routine management activities. Actions may include:

Identifying malodorous loads prior or after been deposited and take appropriate action.

Processing transfer station wastes in approximately the order received, so that wastes are not left unprocessed for long periods of time.

Prompt removal of processing residues to final disposal, for the same reasons

Often, the processing and segregation of waste generates additional stockpiles, and may increase volume (shredded waste may have a lower density). These processed materials also require prompt and proper management.

Identifying malodorous wastes for prioritised processing during waste acceptance, and alerting management and sales, so that acceptance can be reassessed

Suspending or rearranging operations, dependent upon the prevailing weather conditions.

If and when an odour problem is identified, immediate remedial action should be initiated, as directed by the Site Manager. In the interim, alternative actions include formal rejection, segregation, immediate loading out, or storage within a building.

The problem should be recorded in accordance with management system documentation, except in the case of very minor incidents. Any external complaint should always be formalised.

Should the Site Manager be unable to implement the necessary remedial action, senior management should be informed without delay, so that advice and/or authorisation for additional equipment or services can be obtained.

Once the immediate remedial action has been taken, a further review of the problem should be undertaken to identify ways in which a recurrence can be prevented. The Site Manager should discuss the issue with senior management senior management, once they have entered the information on the incident report form.

Dependent upon the outcome of the review, procedures or equipment may be altered to minimise the risk of a recurrence. Any personnel training issues identified should be addressed.

The annual management review should include a discussion of such incidents, and consider the success or otherwise of the remedial action taken. In light of the overall performance in respect to odour control, further measures may be deemed necessary.

Loads can be rejected formally, with the details reported to the Environment Agency on a Schedule 6 notice. A copy should be appended to the incident report.

Risk Factor			Risk Management	Assessment		
Hazard	**Receptor**	**Pathway**	**Controls**	**Probability**	**Consequence**	**Overall Risk**
Loading, Unloading and Handling of Wastes	Local industrial and residential properties, down-wind of site	Air – the prevailing wind direction is south-west, but there can be lengthy spells of north-easterly winds	Prompt transfer into tipping bays and from them to processing areas Rejection of malodorous loads Prompt removal of odorous loads to landfill	3	Odour nuisance leading to complaints	Not significant if properly controlled
Landfill operations – waste cover, leachate and gas management			Prompt cover of wastes at landfill, proper management of leachate and gas systems	3		Not significant if properly controlled
Fire			Good working practice and housekeeping Refer to ELAS Fire Risk Assessment	1		Not significant
Composting operations (not currently undertaken, but an exemption has been granted)			Odour most likely to arise when material is turned or gathered – so these operations will not be undertaken in windy weather	3		Not significant if properly controlled
Vandalism leading to delays in processing due to equipment damage			Site Security – fences, cameras, staff vigilance	1		Not significant
Vehicle/Plant Operations			Training personnel in correct procedures that minimise the risk of odour (e.g. by not disturbing stockpiles unless loading out)	1		Not significant
Maintenance Work (may disturb waste stockpiles, or cause other odours (e.g. use of solvent-based cleaners, hot work, etc.)			Work carried out	1		