

1.0 Purpose and Scope

This procedure defines in general terms the processes for managing odour relating to Welsh water liquid treatment centres operated by Welsh Water Organic Waste Limited (WWOWL).

This procedure is to be used by all DCWW employees involved in the management and operation of Liquid Waste Treatment centres operated by WWOWL.

2.0 Contents

1.0	Purpose and Scope.....	1
2.0	Contents.....	1
3.0	Record of Change	1
4.0	Odour General Overview	1
5.0	Process Objectives	2
6.0	Odour Complaints	3
7.0	Managing Odour Complaints	3
7.1	Odour complaint to WWOWL.....	3
7.2	Odour complaint to DCWW customer line	3
7.3	Odour complaint direct to DCWW site/operational staff.....	3
7.4	Odour Process flow chart.....	4
8.0	Investigation of odour complaint and mitigation of odours.....	5
8.1	Odour Control	5
8.2	Monitoring and Measuring	5
9.0	Records.....	5
10.0	Reference Documents.....	5

3.0 Record of Change

Issue Date	Number &	Details of Change

4.0 Odour General Overview

An odour can be due to a single chemical species in the air, dominant odorous chemical species among many other essentially non-odorous substances or it may be a mixture of several substances, some or all of which may be odorous.

There are many chemical species that have been detected in liquid waste odours. There are a wide variety of organic sulphides and organic nitrogen based compounds that contribute to odour. In addition to these compounds, there are many potential substances which may be released present in organic liquid effluent.

WWOWL have an obligation to manage and reduce odour nuisance. In the case of statutory nuisance from odour, it is the responsibility of WWOWL to demonstrate that appropriate odour control measures have been identified and implemented.

The liquid waste sites will be regulated under a waste permit issued by the Environment Agency (EA) or Natural Resources Wales (NRW).

Current permit odour control conditions cover two elements –

- The odour boundary condition, which specifies the outcome which the operator must achieve – no pollution beyond the site boundary.
- Where activities are considered likely to give rise to odour, an odour management plan (OMP) is required.

The permit conditions stipulates the site will be free from odour at levels likely to cause pollution outside the site, unless the operator has used appropriate measures, included or not limited to, those specified in any approved odour management plan. As part of the permit conditions WWOWL will implement appropriate measures to prevent or minimise odour. The measures required need to be what are reasonable, good practice and balances the costs and benefits to prevent or minimise odour.

Three Levels of Odour –

<p>Unreasonable Odour – amounting to serious pollution is being or is likely to be caused (regardless of whether appropriate measures are being used).</p> <p>You must take further action or you may have to reduce or cease operations. The Environment Agency/Natural Resources Wales Would Not issue a permit if it considered that you were likely to be operating at this level.</p>
<p>Odour pollution is or likely to be caused beyond boundary Your Duty is to use appropriate measures to minimise odour You are not in breach if you are using appropriate measures</p> <p>If appropriate measures are being used, residual odour will have to be tolerated by the community. For some activities appropriate measures will achieve no smell beyond the boundary.</p>
<p>No Odour beyond the boundary or likely to be = no pollution = no action needed</p>

5.0 Process Objectives

The overall process objective is to manage and reduce odour nuisance being experienced by WWOWL customers, site staff including DCWW site staff and the public associated with emissions attributed to WWOWL Liquid Treatment centres.

6.0 Odour Complaints

WWOWL are required to respond to any reported incidents where malodours are originating from site.

These incidents are reported via a number of routes. These include;

- General public via WWOWL customer complaints
- General public via DCWW customer complaints
- General public directly to site staff (WWOWL and DCWW site staff)
- Local Authority
- Internally – WWOWL/DCWW staff
- Contractors/Hauliers
- Natural Resources Wales/Environment Agency

7.0 Managing Odour Complaints

7.1 Odour complaint to WWOWL

WWOWL can be contacted directly via the email address and the WWOWL 24 hr contact number. The email address is monitored Monday to Friday between 8 am and 5.30 pm. The 24 hr contact number is diverted to the person on call outside working hours.

7.2 Odour complaint to DCWW customer line

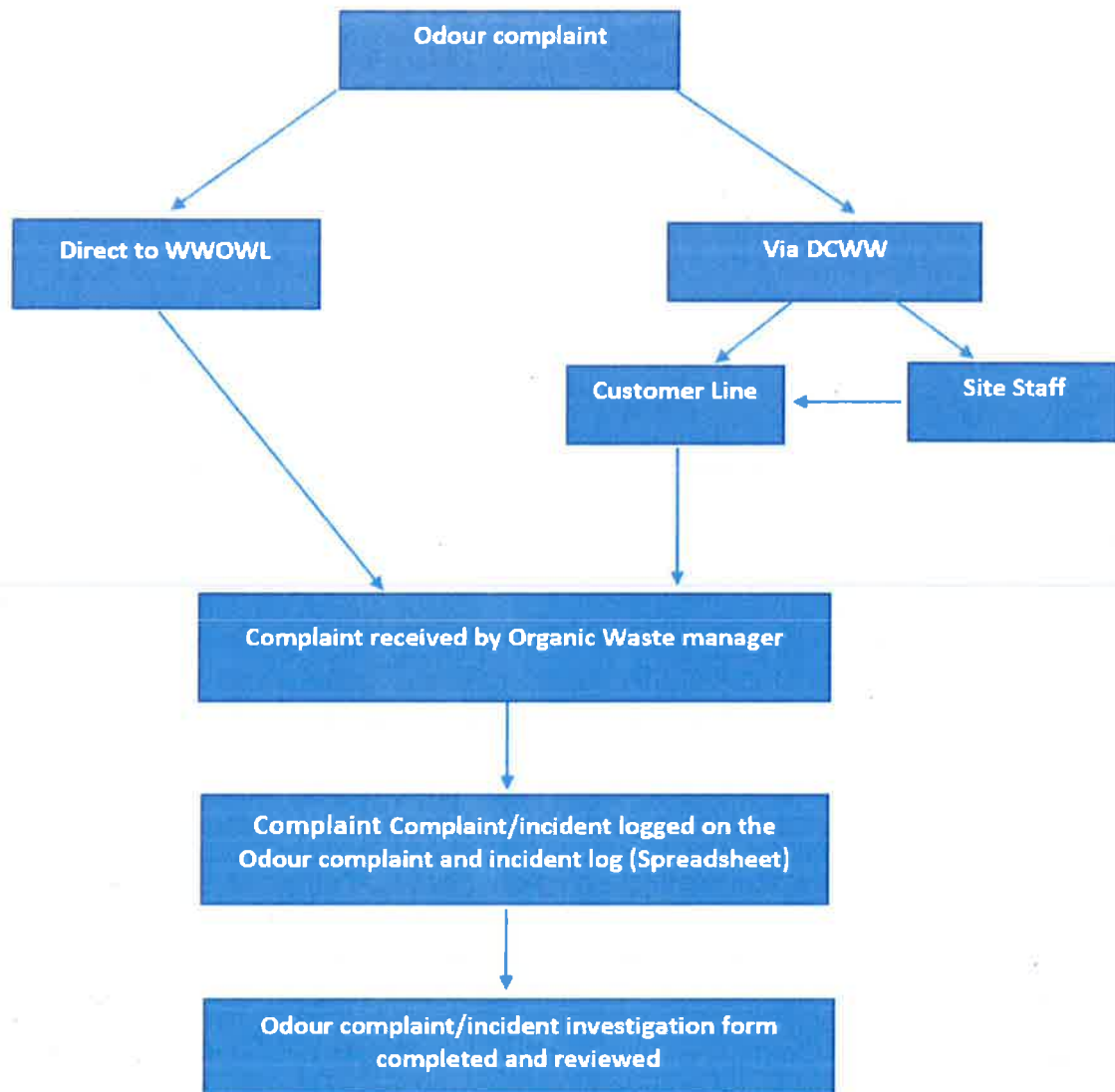
Customer can contact DCWW through the customer 24hr line, DCWW have a complaints procedure, the complaint is logged, given a reference number and is forwarded onto the WWOWL Organic manager.

7.3 Odour complaint direct to DCWW site/operational staff

Odour complaints may be made direct to DCWW site staff. DCWW have an odour complaints procedure which they implement. Part of the procedure is that any complaint received by site staff are passed on the customer line who will forward on the complaint to the organic waste manager.

WWOWL form part of the Welsh water group and any odour issues linked to DCWW sites that a liquid waste treatment centres is based on will be reported back to the Organic waste manager.

7.4 Odour Process flow chart



8.0 Investigation of odour complaint and mitigation of odours

The initial steps of the investigation involve attending the location of the complaint. The purpose is to identify the root cause of the problem and undertake appropriate action to remove the problem. Assessing the source and impacts of odour emissions on customers, and hence determining our priorities for mitigation works, is influenced by many parameters, including; weather conditions, the type of discharges (including illegal ones), asset performance and operational activities, together with varying customer tolerance/ perception. Odour emissions and their impacts can therefore often be very transient in nature, making root cause analysis difficult. In such cases this will be escalated for more in depth monitoring and root cause analysis.

8.1 Odour Control

There are 3 main types of odour control processes implemented by WWOWL/DCWW

- Good site management and house keeping
- Chemical treatment
- Cover, collect and treat

At problematic sites Odour Management Plans are implemented as an additional control measure. These documents identify site specific processes and measures to identify and manage odour at particular assets. They are reviewed annually.

8.2 Monitoring and Measuring

In order to monitor and track performance against the management and control of odour related incidents, WWOWL carryout the following monitoring and measuring activities.

- Complaint/incident will be logged on the Odour complaint and incident log (Spreadsheet)
- Odour complaint/incident investigation form completed and reviewed

9.0 Records

Record	Reference	Retained by

10.0 Reference Documents

Document	Document Reference
How to comply with your environmental permit	
Natural Resources Wales – How to comply with your permit – H4 Odour Management	

Date:		Time:		Reference	
Route of complaint:					
WWOW Site:					
Contact details of complainant:		Tel:	Address:		
		Email			
Location of odour complaint					
Description of odour complaint:					
What does it smell like		How unpleasant is it		Do you consider the smell offensive?	
Duration of odour issue		Constant or intermittent		Intensity (0 – 6)	
Previous related complaints?					
Weather Conditions at time of odour issue:					
Temperature:					
Wind direction and strength					

Complainant contacted/Issue resolved?/Follow up		
Date:		
Date:		

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

Welsh Water Organic Waste

Odour complaints and investigation form

Site Investigation

Issue	Y/N	Why? – details	Action taken	Follow up
Received extremely odorous waste			e.g. remove from site	e.g. permit to discharge removed
Has waste become anaerobic/septic			e.g. aeration /mixing failed or not adequate?	e.g. plant fixed – assessing extra aeration requirements
Waste stored for longer than 48hrs				
Has process plant failed Blower/mixer/pumps				
Abnormal activity (e.g. spillage)				
Plant shut down required?				
Other issues				

Review of complaint	
Date	
Sign off	