

Inventory of Source Materials

Source No.	Source Description	Odorous Material & Description	Point of Release	Pattern of Release	Intensity at Point of Release
1	Roller Shutter Doors (1)	Roller shutter doors contain the new storage area within the warehouse. Liquid wastes stored within sealed tanks. R&D (including Synthomer still 5 waste) hydrolysis & processing.	Opening & shutting of the roller shutter doors.	Intermittent dependent on deliveries.	2
2	Solids Bay (1)	Reception of solid feedstocks such as grains, fruits, chicken litter within an enclosed and sealed solids reception area with a roller shutter door.	Opening & shutting of the roller shutter doors. Clean downs.	Intermittent dependent on deliveries	3
3	RT1 Loading Bay	Liquid waste reception as well as pumping station to the warehouse storage.	Spillages & displaced air	Intermittent	3
4	Roller Shutter Doors (2)	Roller shutter doors contain the new storage area within the warehouse. Liquid wastes stored within sealed tanks. R&D (including Synthomer Still 5 waste) hydrolysis & processing.	Opening & shutting of the roller shutter doors.	Intermittent dependent on deliveries.	2
5	Onsite Pumping Stations	Liquid incoming wastes, blended wastes, reactor effluent, treated effluent. Odour dependent on source of material.	Bunded Plant Area	Intermittent.	Varies between the ranges of 0-1. The intensity is taken from VDA 3882 Part 1. Potential odour release is

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					intermittent and very faint in potential intensity.
6	Centralised Odour Abatement (Odour Scrubber)	Centralised scrubbing system using chemical treatment, trickle filtration, nanobubbles (as well as ozone where required) to scrub all off gases on site.	Vent at the top of the tower	Continual	2
7	Feedstock Reception Warehouse	Liquid waste reception & storage within the warehouse. Variety of different liquid wastes, sludges & products.	Loading/unloading, any potential spillages. Off-gases to be scrubbed. Roller shutter doors. Through access/egress	Intermittent	2
8	RT2 Reception	Liquid waste (up to 75m ³) received and pumped directly into enclosed horizontal reception tank. Potential odour dependent on source (Types of waste include Brewery waste, Yeast and Hops, Maltings low strength low odour waste streams).	Received into sealed enclosed reception tank (75m ³ double banded tank). From this tank, it is pumped into feed tanks prior to the anaerobic digestion process.	No expected release during normal plant operation. Direct containment & receiving of the waste. There is an immediate washdown of hoses and sniffer valve availability at the reception area following all coupling/decoupling of tankers. Contaminated vehicles outside of pre-acceptance requirements will be rejected. Waste is to be processed through the plant within 48 hours, residence time within reception tanks	Varies between the ranges of 0 – 3. The intensity is taken from VDA 3882 Part 1. Potential odour release is intermittent. Odour very faint to distinct in potential intensity.

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				would be no more than 24 hours. Highly odorous waste will be rejected. Wastes are pumped from tanker. Where tanker pumps are used, the displaced air connected to the odour scrubber.	
9	Flare/s	Biogas from Reactors treated by Biogas Scrubber to remove Hydrogen Sulphide	Bottom and top of the shroud on the flare	No odour on complete combustion in normal operation. Only unexpected odour when failure of flare occurs. Only in operation, when CHP down for maintenance.	Varies between the ranges of 0-1. The intensity is taken from VDA 3882 Part 1. Potential odour release is intermittent and very faint in potential intensity.
10	CHP	150 kW Tedom Biogas CHP Engine. CHP Exhaust. Odour of exhaust gases	Exhaust of engine situated on top of the engine	No odour on complete combustion in normal operation. Constant operation (8000 hours) of CHP Unit	Varies between the ranges of 0-1. The intensity is taken from VDA 3882 Part 1. Potential odour release is intermittent and very faint in potential intensity
11	ABP / MBT	Liquid waste received and accepted by site, blended tested and conditioned prior to	Vent / outlet of carbon scrubbers 2&3.	Odour release only when media saturated	Varies between the ranges of 0-2. The intensity is taken from VDA 3882 Part 1.

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		feeding to the plant. Dependant on source, the type of odour varies.			Potential odour release is intermittent and very faint to faint in potential intensity.
12	Main Break Tank	Anaerobic effluent contained within sealed system. Treated effluent odour.	No release point for odour, fully contained system. Connected to carbon scrubber 2 for displaced air treatment. Vent on top of carbon scrubber.	Odour release on break tank empty clean and inspection (once annually) or potentially on break tank maintenance when required. Any off gases from the effluent will be collected by carbon scrubber.	Varies between the ranges of 0-1. The intensity is taken from VDA 3882 Part 1. Potential odour release is intermittent and very faint in potential intensity.
13	Reactor 1 Nano Bubble Treatment	Liquid waste/treated anaerobic effluent/treated effluent being treated by nano-bubbles & ozone for tertiary polishing	Off gases – top vent of R1 connected to a carbon scrubber. Odour potential on de-sludging	Intermittent for de-sludging. Off-gases are treated with ozone/nano-bubble and should be non-odorous.	1
14	Reactor 6 Feedstock Storage	Liquid waste / feedstock stored & de-watered prior to mixing & blending.	Displaced air to off R6 connected to a carbon scrubber and odour abatement system.	Intermittent / when tanker being offloaded or transfers or re-circulation.	2
15	Grey Feedstock Tank	Liquid waste/feedstock stored, blended & mixed prior to feedstock removal from site	Displaced air connected to the carbon scrubber 5	Intermittent / when tanker being off loaded or transfers or re-circulation.	2

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			and the odour abatement system.		
16	Gold Feedstock Tanks	Liquid waste/feedstock stored, blended & mixed prior to feedstock removal from site	Displaced air connected to the carbon scrubber 5 and the odour abatement system.	Intermittent / when tanker being off loaded or transfers or re-circulation.	2
17	White Feedstock Tanks	Liquid waste/feedstock stored, blended & mixed prior to feedstock removal from site	Displaced air connected to the carbon scrubber 5 and the odour abatement system.	Intermittent / when tanker being off loaded or transfers or re-circulation.	2
18	R&D Plant for leachate, FOG & Complex Wastes. Reception tanks	Fats, oils & greases hydrolysed through aerobic & biological processes to achieve a highly concentrated liquid feedstock. Dependant on source. Fats, oils & grease from Industry, Sewage Treatment & Food Production. Other complex wastes to be processed & hydrolysed. The chemical mixing tank is included within this emission point	Vents on system connected to carbon scrubbers 6-7 and the odour abatement system	Intermittent dependent on loading/unloading, mixing & hydrolysis requirements.	Varies between the ranges of 0-2. The intensity is taken from VDA 3882 Part 1. Potential odour release is intermittent and very faint to faint in potential intensity.
19 - 22	Reactor PRVs	AD effluent / off-gases	Highest point of the reactors at the vent points of the PRV's	Rare / infrequent	3
23 - 28	Reactor Overflow	AD effluent / off-gases	Effluent overflow vent at the top of the Reactors	Rare / infrequent off gases	3

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				Continuous liquid	2
29	Inlet DAF (1)	Settled low strength low odorous waste including Brewery waste, yeast, hops & Maltings.	The DAF is completely covered. However during the weekly schedule the top of the DAF will be exposed for approximately and hour.	Continuous for scheduled period	2
30	DAF Break Tank (1)	Treated settled low strength low odorous waste including Brewery waste , yeast, hops & Maltings.	Vent point at the top of the tank	Intermittent	2
31	Effluent DAF (2)	Nana bubble treated effluent	The DAF is completely covered . However during the weekly schedule the top of the DAF will be exposed for approximately and hour.	Continuous for scheduled period	2
32	Complex DAF (3)	Fat's oils and greases. Complex & leachate waste streams	The DAF is completely covered . However during the weekly schedule the top of the DAF will be exposed for approximately and hour.	Continuous for scheduled period	3

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33	FOG Storage Tank	Hydrolysed FOG's	Vent at the top of the tank that is connected to carbon scrubbers 6-7 and the odour abatement system.	Intermittent	2
34	DAF 3 Break Tank	Chemical and Nano bubble treated effluent.	Vent at the top of the tank that is connected to carbon scrubbers 6-7 and the odour abatement system.	Intermittent	1
35	Oil Storage Tank	Heating oil	Sealed tank	Intermittent	3
36	Boiler	Heating oil	Flue	Intermittent	1
37	TF1 Tank Farm	Processed feedstock Surplus wastes & Products	Vent at the top of the tank that is connected to carbon scrubbers 6-7 and the odour abatement system.	Intermittent	2
38	TF9 Tank Farm	Processed feedstock Surplus waste's & Products	Vent at the top of the tank that is connected to carbon scrubbers 6-7 and odour abatement system.	Intermittent	2



Odour Management Plan – Inventory of Source Materials