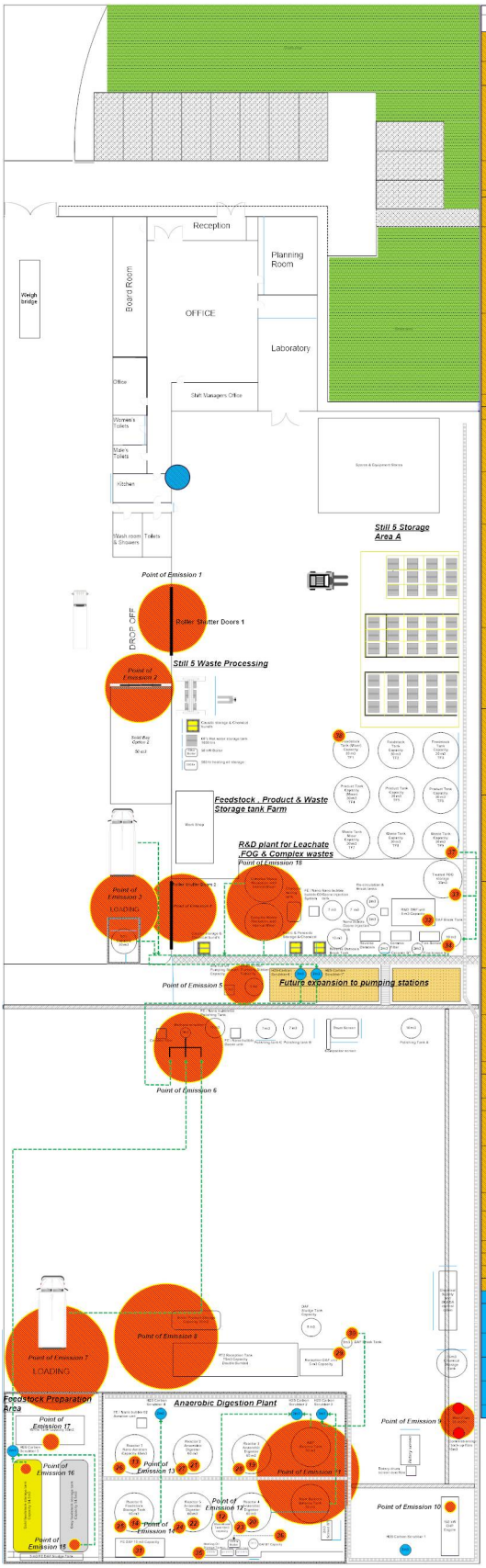

Points of Emissions

Point number	Emission source	Emission Mitigation	Comments
1	Roller shutter doors 1	• Plastic strip containment strips when doors are open. • Shutter doors to remain shut when not in use.	• Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water. • The roller shutter doors to be closed to mitigate any odour release.
7	Solids bay 1	• Roller shutter doors.	• Daily, Weekly & Monthly cleaning schedule. • Including weekly wash down and cleansing using Nano bubble ozone water to disinfect.
3	RT1 Loading bay	• Waste to be pumped off tanker to prevent emissions from displaced air. • Should the tanker need to pump off the waste the displaced air is to be connected to the site odour treatment unit. • Daily wash downs and cleaning using Nano bubble ozone water is to carried out to disinfect & Neutralisation of the area so prevent odours and vermin.	• Displaced air to be connected and extracted via pump to the odour scrubber unit and treated via the Nano bubble technology. • Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water. • Any spillages to be cleaned up immediately. • Nano bubble technology maintenance and servicing scheduled adhered to.
4	Roller shutter doors 2	• Plastic strip containment strips when doors are open. • Shutter doors to remain shut when not in use.	• Daily, Weekly & Monthly Cleaning schedule using nano bubble ozone treated water. • The roller shutter doors to be closed to mitigate any odour release.
5	On site pumping stations	• Covered	• Daily, Weekly & Monthly cleaning schedule.
6	Odour scrubber	• Nano bubble oxidation with ozone.	• Peroxide & Hydroxide addition to assist with neutralisation of odours if required. • Nano bubble technology maintenance and servicing scheduled adhered to.
7	Feedstock Reception	• Waste to be pumped off tanker to prevent emissions from displaced air. • Should the tanker need to pump off the waste the displaced air is to be connected to the site odour treatment unit. • Daily wash downs and cleaning using Nano bubble ozone water is to carried out to disinfect & Neutralisation of the area so prevent odours and vermin.	• Displaced air to be connected to the odour scrubber unit using Nano bubble technology. • Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water. • Any spillages to be cleaned up immediately. • Displaced air to be connected to the odour scrubber unit using Nano bubble technology. • Nano bubble technology maintenance and servicing scheduled adhered to.
8	RT2 Reception	• Waste to be pumped off tanker to prevent emissions from displaced air. • Should the tanker need to pump off the waste the displaced air is to be connected to the site odour treatment unit. • Daily wash downs and cleaning using Nano bubble ozone water is to carried out to disinfect & Neutralisation of the area so prevent odours and vermin.	• Displaced air to be connected to the odour scrubber unit using Nano bubble technology. • Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water. • Any spillages to be cleaned up immediately. • Monthly tank desludging. • Annual tank inspection and clean. • Nano bubble technology maintenance and servicing scheduled adhered to.
9	Plant's	• Effective H2S management to minimise the levels in the biogas.	• Annual servicing and analysis ensuring emission limits are achieved.
10	CHP	• Effective H2S management to minimise the levels in the biogas.	• Annual servicing and analysis ensuring emission limits are achieved.
11	ASP/MB	• Covered & Displaced air treat via a carbon scrubber	• Daily monitoring. Weekly and Monthly checks . • Carbon scrubber replacement schedule. • Weekly tank desludging. • Annual tank inspection and clean.
12	Main break tank	• Covered & Displaced air treat via a carbon scrubber	• Daily monitoring. Weekly and Monthly checks . • Carbon scrubber replacement schedule. • Weekly tank desludging. • Annual tank inspection and clean.
13	Reactor 1 Nano treatment	• Nano bubble oxygen injection • Carbon Filter 4	• The Nano bubbles have an odour neutralising properties to prevent odours. • Daily monitoring. Weekly and Monthly checks . • Carbon scrubber replacement schedule. • Monthly tank desludging. • Annual tank inspection and clean. • Weekly tank desludging. • Annual tank inspection and clean. • Nano bubble technology maintenance and servicing scheduled adhered to.
14	Reactor 6 Feedstock storage	Displaced air treatment via Nano bubble ozone disinfection and neutralisation	• Displaced air to be connected to the odour scrubber unit using Nano bubble technology. • Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water. • Weekly tank desludging. • Annual tank inspection and clean. • Nano bubble technology maintenance and servicing scheduled adhered to.
15	Grey Feedstock tanks	Displaced air treatment via Nano bubble ozone disinfection and neutralisation	• Displaced air to be connected to the odour scrubber unit using Nano bubble technology. • Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water of the area. • Any spillages to be cleaned up immediately. • Weekly tank desludging. • Annual tank inspection and clean. • Nano bubble technology maintenance and servicing scheduled adhered to.
16	Gold Feedstock tanks	Displaced air treatment via Nano bubble ozone disinfection and neutralisation	• Displaced air to be connected to the odour scrubber unit using Nano bubble technology. • Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water of the area. • Any spillages to be cleaned up immediately. • Weekly tank desludging. • Annual tank inspection and clean. • Nano bubble technology maintenance and servicing scheduled adhered to.
17	White Feedstock tanks	Displaced air treatment via Nano bubble ozone disinfection and neutralisation	• Displaced air to be connected to the odour scrubber unit using Nano bubble technology. • Daily, Weekly & Monthly cleaning schedule using nano bubble ozone treated water of the area. • Any spillages to be cleaned up immediately. • Weekly tank desludging. • Annual tank inspection and clean. • Nano bubble technology maintenance and servicing scheduled adhered to.
18	R&D plant for Leachate FOG & Complex wastes	The R&D facility is within the warehouse and is immediately treated with ozone nano bubble treated effluent to prevent odours	• Daily, Weekly & Monthly cleaning schedule. • Including weekly wash down and cleansing using Nano bubble ozone water to disinfect. • Nano bubble technology maintenance and servicing scheduled adhered to.
19-22	Reactor PRVs	The reactor PRVs will only operate if the pressure in the vessel exceed the pressure set point. This is a safety feature to protect the reactor. The PRV release the pressure build up in to a DSEAR rated area. Due to the height and wind distribution is deemed safe for a short duration.	
23-28	Reactor overflow	The water trap keeps the biogas escaping	
29	Inlet DAF (1)	The surface of the DAF is covered in heavy duty plastic fixed to frame but removable for cleaning & operational purposes	
30	DAF break tank	Displaced air to be treated by connected carbon filter	Maximum displacement flow 20m3/hr
31	Effluent DAF (2)	The surface of the DAF is covered in heavy duty plastic fixed to frame but removable for cleaning & operational purposes, Chemical and Polymer/Coagulant addition to optimise odour management	The effluent will already be Nano bubble treated to assist in odour management
32	Complex DAF (3)	The surface of the DAF is covered in heavy duty plastic fixed to frame but removable for cleaning & operational purposes, Chemical and Polymer/Coagulant addition to optimise odour management. Displaced air to be treated by carbon treatment system and carbon filters.	The effluent will already be Nano bubble ozone treated to assist in odour management
33	FOG Storage tank	To be connected to the Carbon scrubber and onsite Nano bubble treatment	
34	DAF 3 break tank	The DAF treated effluent will have been treated using Peroxide, pH corrected , Polymer and coagulant addition along with 03 Nano bubble treatment	
35	Heating of double bunded storage tank		
36	200kw Boiler	Annual service & Daily , weekly checks	
37	TF1 Tank Farm	Has a displaced air carbon filter attached	
38	TF5 Tank Farm	Connected to carbon scrubber and odour treatment facility	
H2S Carbon Scrubber 1	CHP HGS Scrubber	Ensures that the H2S levels are below 150 ppm into the engine	The engine has its own H2S monitor
H2S Carbon Scrubber 2	ASP/MBR Displaced air scrubber	Treats the displaced air from the ASP/MB holding tanks the maximum pump rate is 28m3 into one or both of the tanks	Both tanks are covered . PRV/ABP tanks hold 50m3
H2S Carbon Scrubber 3	Treats the displaced air from the DAF 1 break tank which has a maximum pump rate is 28m3 into one or both of the tanks		The DAF can be treated with pH correction , Polymer & Coagulant dosing , Peroxide addition. Which feeds the ASP & MBT
H2S Carbon Scrubber 4	Treat the displaced air from RT2 & R1	Maximum air displacement rate from RT1 is 120m3/hr. R1 could have a displacement flow of up to 1,600 cbm.	To minimise odour release we will use our pump to off load tankers. Nano bubble technology will assist odour removal. Also treated via a carbon scrubber.
H2S Carbon Scrubber 5	Feed tanks, White, Gold & Grey	The displaced air will be treated via a carbon scrubber. The air will be pulled to scrubber via the extraction blower fo the odour control unit.	The maximum total condensed capacity is 150m3. The maximum displacement flow is 20m3/hr. The waste composition of all odour resources are as per acceptance analysis and below acceptance limits.
H2S Carbon Scrubber 6 & 7	Complex waste with Ammonia	Treated via carbon scrubber and odour treatment system	

Waste4Generation ltd Corby Facility	Drawing No 0004	Revision 0000	Drawn Kevin Herring	Status	Waste4Generation Ltd Site Darkstone road Parkview 1, Oakcroft Estate Northamptonshire NN17 5RF
Title Site plan of emission layout	Scale 1:250	Date 07/11/2023	Checked K.		