

SITE NAME: CRAWLEY STW

ODOUR RISK ASSESSMENT

Process Stage	Process Unit	Normal			Abnormal			Nearest Customer/Receptor	Offensiveness (0-5)	Likelihood of Impact (0-5)	Odour Risk (<5 Low, >15 High)	Odour Impact	Mitigation Measures (For more info refer to the OMP)	Residual Odour Impact (LM/H)	Responsibility for Mitigation Measures	Customer Communication Needed?	Notes
		Odour Description	Constant/ Intermittent/ Occasional/ Rare	Event Description	Likelihood of Event/ Frequent/ Rare/ Planned	Length of Time of Release											
ADD EXTRA ROWS BELOW THIS ROW IF REQUIRED																	
Cess Import	Incoming Sewers & Reception Wet Well	Cess import	I				Localised on site	5	1	5	Medium	Manual cleaning. Closed couple connections before entering the inlet. Hosed down/checked daily. Monthly PPM	L	-	-	-	
Works Inlet	Incoming Sewers & Reception Wet Well	Crude sewage and H2S	C				Localised on site	2	1	2	Low	-	L	-	-	-	
Storm Separation	Storm lagoon	Sewage smell	I				Localised on site	3	1	3	Low	Retention time minimised, automatically returned once out of storm conditions.	L	-	-	-	
Preliminary Treatment	Screens	Crude sewage	I				Receptors (see table 2.1 in OMP)	3	3	9	Medium	General maintenance, manual cleaning every other day, per site walk around.	M	Tech 1	-	-	
Preliminary Treatment	Screenings skips	Organic smell	I				Localised on site	3	3	9	Medium	Rag skip emptied every 2 days, grit skip emptied as required. Full skips not left on site more than 3 days.	M	Tech 1, Biffa	-	-	
Preliminary Treatment	Grit Removal Equipment, Drainage	Organic smell	C				Localised on site	2	1	2	Low	Ensure skips are removed from site as soon as practicable. Full skips are not to be stored on site	L	-	-	-	
Preliminary Treatment	Grit skips	Organic smell	I				Localised on site	3	3	9	Medium	Grit skip emptied as required. Full skips not left on site more than 3 days.	M	Tech 1	-	-	
Crude Sewage Transfer	Flow & Distribution to Primary Settlement Tanks	Crude sewage	C				Localised on site	2	2	4	Low	Manual cleaning if overflows or block.	L	Tech 1	-	-	
Primary Settlement	Primary Settlement Tanks	Organic smell	C				Localised on site	2	2	4	Low	Unblock and contact contractors when needed. Manually dipped 3 times a week to check blanket levels.	L	-	-	-	
Primary Settlement	Primary Raw Desludge Pumping	Sludge smell	I				Localised on site	4	2	8	Medium	Monthly maintenance.	M	Tech 1	-	-	
Settled Sewage Transfer	Flow & Distribution to Secondary Treatment	Organic smell	C				Localised on site	2	2	4	Low	Enclosed system underground.	L	-	-	-	Tanks
Secondary Treatment	Activated Sludge Plant Lanes & Zones	Earthy smell	C				Localised on site	1	1	1	Low	Monthly maintenance on DO probes.	L	Tech 1	-	-	
Secondary Treatment	Flow & Distribution to Final Settlement Tank	None						0	0	0	N/A	Treated sewage - little to no odour present	-	-	-	-	
Secondary Settlement	Final Settlement Tanks	None						0	0	0	N/A	If tanks are taken out of service ensure once drained that they are hosed down	-	-	-	-	
Secondary Settlement	Scum Removal System	Slight earthy smell	C				Localised on site	1	1	1	Low	Checked daily, unblock if blocked.	L	-	-	-	
Secondary Settlement	RAS Chambers & Pumping	Earthy smell	C				Localised on site	2	1	2	Low	Daily checks on pumps.	L	-	-	-	
Secondary Settlement	SAS Chambers & Pumping	Earthy smell	C				Localised on site	1	1	1	Low	Clean area, monthly maintenance on pumps	L	Tech 1	N	-	
Tertiary Treatment	Filtration - Disc Filters	None						0	0	0	N/A	Monthly planned maintenance. Checked daily.	-	-	-	-	
Tertiary Treatment	Back Wash Returns	Earthy smell	I				Localised on site	2	1	2	Low	Daily checks on pumps.	L	-	-	-	
Tertiary Treatment	Filtration - Slow Head Sand Filters	None						0	0	0	N/A	-	-	-	-	-	
Final Effluent	Outfall Number 2	None						0	0	0	N/A	-	-	-	-	-	
Final Effluent	Outfall Number 3	None						0	0	0	N/A	-	-	-	-	-	
Sludge Conditioning (Indigenous)	Primary raw sludge balancing tank	Raw sludge smell	C					3	1	3	Low	Tank is cleaned every 3-4 months by contractors.	-	-	-	-	

Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping - PFTs	Raw sludge smell	C				Receptors	1	1	1		Low	Daily/weekly/monthly maintenance. Serviced by OCU.	L	Tech 1	-	
Sludge Conditioning (Indigenous)	SAS Balancing Tank	Earthy smell	C				Localised on site	1	1	1		Low	Daily visual checks on balancing tanks.		Tech 1		
Sludge Conditioning (Indigenous)	SAS Screening unit	Earthy smell	C				Localised on site	2	0	0		Low	Bypassed				No rag present in SAS
Sludge Conditioning (Indigenous)	SAS Screening skips	Earthy smell	C				Localised on site	1	0	0		Low	Currently not in use				Storage of screenings in a skip prior to disposal off-site
Sludge Conditioning (Indigenous)	Return Liquors	Sludge smell	I				Localised on site	2	1	2		Low	Daily visual checks as per site rounds.	L	Tech 1	-	Not covered / Discharging into the inlet work
Sludge Treatment	Thermal Hydrolysis Plant - THP feed silo	Sludge smell	C				Receptors (see table 2.1 in OMP)	3	0	0		Low	Weekly and monthly maintenance. OCU maintained. OCU connected to SCADA		Tech 1		Receives cake sludge pumped from indigenous and imported sludge cake areas. Discharges directly to THP unit. Silo extracted to Odour Control Unit.
Sludge Treatment	Thermal Hydrolysis Plant - THP units	Sludge smell	R				Receptors (see table 2.1 in OMP)	4	4	16		High	Daily/weekly/monthly maintenance as per site round. Enclosed. Serviced by OCU.		Tech 1		High temperature treatment of sludges prior to mesophilic anaerobic digestion, dewatering and storage in existing units / Under normal operation, generated gases are entrained into the primary digesters for handling with the biogas
Sludge Treatment	Digester Feeding, Mixing & Discharge	Sulphur compounds	R				Localised on site	3	2	6		Medium	Daily/weekly/monthly maintenance as per site round. Enclosed.	L	Tech 1	-	Anaerobic digestion so not open to atmosphere / slight methane smell from whesose
Sludge Treatment	Emergency Sludge Storage Tanks	Sludgy earthy smell	C				Localised on site	2	2	4		Low	Daily visual checks	L	-	-	Four Tanks. One always in use.
Sludge Dewatering	Strain press	Sludgy earthy smell	C				Localised on site	1	1	1		Low	Daily/monthly/weekly maintenance. OCU maintained. OCU connected to SCADA	L	Tech 1	-	Odour Controlled
Sludge Dewatering	Primary raw sludge screening skips	Organic smell	I				Localised on site	3	3	9		Medium	Skips not held on site longer than 3 days. Daily/weekly/monthly maintenance.	M	Tech 1 Biffa.	-	
Sludge Dewatering	SAS Belt thickener	Earthy smell	C				Localised on site	2	1	2		Low	Enclosed in a building with ventilation system	L	Tech 1	-	
Sludge Dewatering	Belt thickener	Sludge smell	C				Localised on site	2	0	0		Low	daily/weekly/monthly maintenance. With covers and abated by OCU. OCU connected to SCADA		Tech 1		Receives blended sludge for dewatering. Discharge of sludge cake to the THP feed silo. Liquors via existing liquor pumping station to existing sludge liquor tank. Covered and extracted to OCU.
Sludge Dewatering	Digested Sludge Liquor Buffer Tank / Liquor PS	Sludge and ammonia smell	C				Localised on site	3	1	3		Low	Daily checks, check on levels and pumps. Tanks covered and vent pipe.	L	Tech1	-	Tanks covered but odour at discharge point (inlet work)
Sludge imports	Sludge cake import building and hopper	Sludge smell	I				Receptors (see table 2.1 in OMP)	3	0	0		Low	daily/weekly/monthly maintenance. Enclosed building with shutter door, extractors for fumes, OCU abated.				Enclose discharge of imported sludge cake. Vented to OCU.
Sludge Storage & Movements	Cake Barn	Sludge and ammonia smell	C				Localised on site	3	1	3		Low	Cake barn - enclosed building with OCU	L	-	-	Enclosed in building with OCU
Sludge Storage & Movements	Vehicle Loading	Sludge and ammonia smell	I				Localised on site	3	1	3		Low	Covered vehicles and loading in the enclosed building, OCU abated.	L	-	-	
Sludge Storage & Movements	Vehicle Wheels Wash	Sludge and ammonia smell	I				Localised on site	1	1	1		Low	Contractor cleaning every 3 months. Checked daily.	L	-	-	
Biogas Systems	Biogas Gas Bag Storage	None						0	0	0		N/A	Daily visual checks	-	-	-	
Biogas Systems	CHP	None						0	0	0		N/A		-	CHP Team	-	
Biogas Systems	Boilers	Methane	C					3	0	0		Low	Daily checks	-	Tech 1	-	
Biogas Systems	Waste Gas Burner	Slight sulphide smell	O				Localised on site	1	1	1		Low	6 months planned maintenance. Daily checks.	L	-	-	Excess of gas burnt through flare stack
Power Generation	Standby Generators	None						0	0	0		N/A	Monthly mandatory check, used as required				
Odour Control Unit 1	Serving dewatering area and cake barn	Earthy smell	C				Receptors (see table 2.1 in OMP)	4	0	0		Low	Daily checks and monthly checks by ERG	M	-	-	
Odour Control Unit 2	Serving picket fence thickeners	Earthy smell	C				Receptors (see table 2.1 in OMP)	4	0	0		Low	Daily checks and monthly checks by ERG	M	-	-	
Odour Control Unit 3	Serving SAS storage tank, sludge screens and skips, screened SAS storage tank, blending tank, dewatering feed tank, belt thickeners, cake import building and hopper and THP feed silo	Earthy smell	C				Localised on site	3	0	0		Low	Daily checks and monthly checks by ERG				

Works Inlet	Incoming Sewers & Reception Wet Well	Sewage smell		Retention time in the network: stronger smell	R	Days	Localised on site	3	1	3		Low	Wells ran low to avoid this.	L	Tech 1	N	
Works Inlet	Incoming Sewers & Reception Wet Well	Sewage smell		Large spillage due to combination of power failure and loss of emergency generation	R	Days	Receptors (see table 2.1 in OMP)	2	3	6		Medium	Call specialist contractor to clean up spillage	L	TM	N	
Storm Separation	Storm lagoon	Septic sewage		Storm return system fails	R	Days	Localised on site	4	2	8		Medium	Find cause and resolve	L	Tech 1	N	
Preliminary Treatment	Screens	Crude sewage		Maintenance	P	Hours	Receptors (see table 2.1 in OMP)	3	3	9		Medium	Planned maintenance	M	Tech 1	N	
Preliminary Treatment	Screens	Organic smell		During winter: frozen machinery	R	Days	Localised on site	2	2	4		Low	Abnormal weather event: wait and then clean / defrost	L	TM	N	
Preliminary Treatment	Screens	Organic smell		Mechanical failure / Blockage resulting in localised flooding	R	Days	Localised on site	3	3	9		Medium	Fix the screens (job to be raised to maintenance) / Any blockages to be cleared and service resumed as soon as practicable	M	TM	N	
Preliminary Treatment	Washpactors unit	Organic smell		Washwater failure	R	Days	Localised on site	3	3	9		Medium	Rag spillages to be cleaned up	M	Tech 1	N	
Preliminary Treatment	Screenings skips	Organic smell		Skips not collected by contractor	R	Days	Localised on site	3	3	9		Medium	Chase contractors, arrival in 1-2 days	M	Tech 1	N	
Preliminary Treatment	Grit Removal Equipment, Drainage	Organic smell		Grit build up in detritor (due to plant failure)	R	Weeks	Receptors (see table 2.1 in OMP)	3	3	9		Medium	Raised the job to Maintenance	M	Tech 1	N	
Preliminary Treatment	Grit Removal Equipment, Drainage	Organic smell		Maintenance	P	Hours	Receptors (see table 2.1 in OMP)	2	1	2		Low	Planned maintenance	L	Tech 1	N	
Preliminary Treatment	Grit skips	Organic smell		Skips not collected by contractor	R	Days	Localised on site	3	3	9		Medium	Chase contractors	M		N	
Crude Sewage Transfer	Flow & Distribution to Primary Settlement Tanks	Septic sewage		Blockage in pipes	R	Days	Localised on site	4	2	8		Medium	Unblock and contact contractors	L	Tech 1 & TM	-	
Primary Settlement	Primary Settlement Tanks	Organic smell		Tank drained down for cleaning and maintenance	P	Hours	Localised on site	2	2	4		Low	Ensure any tank drained down is hosed out as soon as practicable to remove any sludge	L	Tech 1	N	
Primary Settlement	Primary Settlement Tanks	Sludge smell		Failure of desludge pump	R	Days	Receptors	4	3	12		Medium	Hand desludge and replace pump	L	Tech 1 and M&E	N	
Primary Settlement	Primary Settlement Tanks	Septic sludge		Scraper failure	R	Weeks	Receptors (see table 2.1 in OMP)	4	3	12		Medium, Sewage can go septic	Hide tank for repair / Raise job to Maintenance	L	Tech 1 and M&E	N	
Primary Settlement	Primary Settlement Tanks	Septic sludge		High level of sludge blanket	R	Days	Receptors (see table 2.1 in OMP)	4	3	12		Medium	Find the cause and resolve	L	Tech 1	N	
Primary Settlement	Primary Settlement Tanks	Septic sewage		Low flows	R	Weeks	Receptors (see table 2.1 in OMP)	4	3	12		Medium	Take one PST out on stage 1	L	TM	N	During summer: frequent / stage 1 only
Primary Settlement	Primary Raw Desludge Pumping	Sludge smell		Maintenance	P	Hours	Localised on site	4	2	8		Medium	Planned maintenance	M	Tech 1	N	
Primary Settlement	Primary Raw Desludge Pumping	Sludge smell		Failure of desludge pump	R	Days	Receptors (see table 2.1 in OMP)	4	4	16		High	Find the cause and Hand desludge	M	TM	N	
Settled Sewage Transfer	Flow & Distribution to Secondary Treatment			Blockage (rag sewage)	R	Days	Localised on site	2	2	4		Low	Find cause and resolve	L	Tech 1	N	
Secondary Treatment	Activated Sludge Plant Lanes & Zones	Earthy smell		Filamentous mousse	R	Weeks	Receptors (see table 2.1 in OMP)	4	2	8		Medium	Chemical dosing into aeration to remove filamentous and spray water onto mousse	L	Tech 1 and PCCO	N	
Secondary Treatment	Anoxic zone	Earthy smell		Failure of mixing	R	Weeks	Receptors (see table 2.1 in OMP)	3	2	6		Medium	Spray water onto mousse and debris and raise job to fix pumps	L	Tech 1 and TM	N	
Secondary Settlement	Flow & Distribution to Final Settlement Tank	Earthy smell		RAS spillage	R	Days	Localised on site	2	2	4		Low	Clean ASAP	L	Tech 1	N	
Secondary Settlement	Final Settlement Tanks	Slight earthy smell		Drain for cleaning and maintenance	P	Hours	Localised on site	1	1	1		Low	Planned maintenance	L	Tech 1	N	
Secondary Settlement	Final Settlement Tanks	Slight earthy smell		Build up of mousse due to filamentous	R	Weeks	Localised on site	2	1	2		Low	Find the cause and resolve	L	Tech 1 and TM & PCCO	N	
Secondary Settlement	Scum Removal System	Slight earthy smell		Build up of scum due to plant failure	R	Weeks	Localised on site	1	1	1		Low	Find the cause and repair	L	Tech 1	N	
Secondary Settlement	RAS Chambers & Pumping	Earthy smell		Spillage	R	Days	Localised on site	2	1	2		Low	Clean area	L	Tech 1	N	
Secondary Settlement	SAS Chambers & Pumping	Earthy smell		Maintenance	P	Hours	Localised on site	1	1	1		Low	Planned maintenance	L	Tech 1	N	
Secondary Settlement	SAS Chambers & Pumping	Earthy smell		Spillage	R	Days	Localised on site	3	1	3		Low	Clean up	L	Tech 1	N	
Tertiary Treatment	Back Wash Returns	Earthy smell		Pump failure/blockage	R	Days	Localised on site	3	2	6		Medium	Find cause and resolve	L	Tech 1	N	
Sludge Conditioning (Indigenous)	Primary raw sludge balancing tank	Stodgy earthy smell		Spillages	R	Days	Localised on site	3	3	9		Medium	Clean up	L	Tech 1	N	
Sludge Conditioning (Indigenous)	Primary raw sludge balancing tank	Stodgy earthy smell		Pump failure	R	Days	Localised on site	3	3	9		Medium	Find cause and resolve	L	Tech 1	N	
Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping - PFT	Raw sludge smell		Maintenance	P	Hours	Receptors (see table 2.1 in OMP)	1	1	1		Low	Planned maintenance	L	Tech 1	N	
Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping - PFTs	Raw sludge smell		Failure of plant: one PFT out of service	R	Weeks	Receptors (see table 2.1 in OMP)	4	3	12		Medium	Investigate cause and raise job for repair	M	Tech 1	N	
Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping - PFTs	Raw sludge smell		Sludge spillages	R	Days	Receptors (see table 2.1 in OMP)	4	3	12		Medium	Clean ASAP	L	Tech 1	N	
Sludge Conditioning (Indigenous)	SAS Balancing Tank	Earthy smell		Failure of equipment leading to accumulation of sludge in aeration lanes	R	Days	Localised on site	1	1	1		Low	Investigate cause and raise job for repair	L	Tech 1	N	
Sludge Conditioning (Indigenous)	SAS Screening unit	Earthy smell		Failure of unit leading to spillage of screenings	R	Hours	Localised on site	2	1	2		Low	Manual cleaning / Investigate and raise job to maintenance	L	Tech 1 & M&E	N	
Sludge Conditioning (Indigenous)	Thickened sludge Blending Tank	Sludge smell		Maintenance	P	Hours	Localised on site	3	2	6		Medium	Planned maintenance	M	Tech 1	N	
Sludge Conditioning (Indigenous)	Thickened sludge Blending Tank	Sludge smell		Pump failure	R	Days	Receptors (see table 2.1 in OMP)	4	3	12		Medium	Investigate and raise job	M	Tech 1	N	

Sludge Conditioning (Indigenous)	Thickened sludge Blending Tank	Sludge smell		Spillages	R	Days	Receptors (see table 2.1 in OMP)	4	3	12	Medium	Clean up	M	Tech 1	N	
Sludge Conditioning (Indigenous)	Return Liquors	Sludgy smell		Heavy sludge returning from PFTs and SAS belts	R	Days	Localised on site	3	2	6	Medium	Investigate cause and raise job if needed	M	Tech 1	N	
Sludge Treatment	Thermal Hydrolysis Plant - THP feed silo	Strong sludge smell		Blockage in conveyor or silo requiring clearing	R	Days	Receptors (see table 2.1 in OMP)	5	5	25	High	Clear blockage	L	Tech 1	N	
Sludge Treatment	Thermal Hydrolysis Plant - THP units	Sludgy smell		Build up of excess pressure leading to release from PRV to reduce frequency	R	Hours	Receptors (see table 2.1 in OMP)	4	4	16	High	Isolate / Find cause and resolve	L	THP operator	N	
Sludge Treatment	Digester Feeding, Mixing & Discharge	Sulphur compounds		Maintenance / Cleaning	P	Hours	Localised on site	3	2	6	Medium	Pump out digested sludge through screens to tankers	L	Tech 1	N	Sludge will then be removed and transported at other TW sites. Containerised screen discharging washed screenings to open skip.
Sludge Treatment	Digester Feeding, Mixing & Discharge	Sulphur compounds		Whessoe valve fails	R	Days	Receptors (see table 2.1 in OMP)	4	3	12	Medium	Investigate cause and raise job if needed	M	TM	N	Health and Safety issue / possible EA notification under permit conditions
Sludge Treatment	Digester Feeding, Mixing & Discharge	Sulphur compounds		Leaking roof	R	Months	Receptors (see table 2.1 in OMP)	4	3	12	Medium	Find fault and escalate	M	TM	N	Health and Safety issue / possible EA notification under permit conditions
Sludge Treatment	Emergency Sludge Storage Tanks (Raw Sludge)	Raw sludge smell		More than one tank in use	R	Hours	Localised on site	3	2	6	Medium	Pumped out once full.	M	Tech 1	N	
Sludge Treatment	Emergency Sludge Storage Tanks (Hydrolysed Sludge)	Sludgy earthy smell		More than one tank in use	R	Hours	Localised on site	2	2	4	Low	Pumped out once full.	L	Tech 1	N	Four tanks. One tank is always used, others will only be used in emergency situations.
Sludge Dewatering	Strain press	Sludgy earthy smell		Maintenance	P	Hours	Localised on site	1	1	1	Low	Planned maintenance	L	Tech 1	N	
Sludge Dewatering	Strain press	Sludgy earthy smell		Failure of OCU	R	Weeks	Localised on site	3	3	9	Medium	Find cause and raise job	M	Tech 1	N	Note: ISG is the company responsible for the maintenance of the OCUs
Sludge Dewatering	Primary raw sludge screening skips	Organic smell		Skips not collected by contractor	R	Days	Localised on site	3	3	9	Medium	Chase contractors	M	Tech 1	N	
Sludge Dewatering	SAS Belt thickener	Earthy smell		Maintenance	P	Hours	Localised on site	2	1	2	Low	Planned maintenance	L	Tech 1	N	
Sludge Dewatering	SAS Belt thickener	Earthy smell		Plant failure	R	Days	Localised on site	2	2	4	Low	Investigate and raise job to maintenance	L	Tech 1	N	
Sludge Dewatering	SAS Belt thickener	Earthy smell		Spillages	F	Days	Localised on site	2	2	4	Low	Clean up	L	Tech 1	N	
Sludge Dewatering	Belt thickener	Sludge smell		Failure of dewatering equipment resulting in too thin sludge to THP unit	R		Localised on site	3	0	0	Low. Little impact on odour from digestion process	Two belts on site, use of other belt. Otherwise, pump of sludge rounds.	L	TM	N	
Sludge Dewatering	Digested Sludge Liquor Buffer Tank / Liquor PS	Sludge and ammonia smell		Leaking covers on belts (slampresses)	R	Days	Localised on site	3	3	9	Medium	Investigate cause and raise job if needed	M	Tech 1	N	
Sludge imports	Sludge cake import building and hopper	Sludge smell		Failure of enclosure leading to failure to extract odours to odour control unit	R	Hours	Receptors (see table 2.1 in OMP)	3	2	6	Medium	Stop cake imports, make repairs to failures.	L	Tech 1	N	
Sludge Storage & Movements	Cake Barn	Sludge and ammonia smell		Doors left open	F	Hours	Localised on site	3	3	9	Medium	Close the doors	M	Tech 1	N	
Sludge Storage & Movements	Vehicle Loading	Sludge and ammonia smell		Doors of the sludge storage building left open	F	Hours	Localised on site	3	3	9	Medium	Clean up	M	Tech1	N	Lorries have a cover
Sludge Storage & Movements	Vehicle Loading	Sludge and ammonia smell		Sludge on wheels	F	Days	Localised on site	1	1	1	Low	Clean up	L	Tech 1	N	
Sludge Storage & Movements	Vehicle Wheels Wash	Sludge and ammonia smell		Build up of sludge in the sump	R	Days	Localised on site	3	2	6	Medium	Clean up	M	Tech 1	N	
Biogas Systems	Biogas Storage	Sulphur compounds		Leaking of the biogas storage	R	Days	Receptors (see table 2.1 in OMP)	3	2	6	Medium	Isolate gas	M	APD (Authorised Person Digester) to contact	N	
Biogas Systems	CHP	None		Maintenance	P	Hours				0	Low	Planned maintenance	L	CHP Team	N	
Biogas Systems	CHP	Sulphur compounds		Leaking of the CHP system	R	Days	Receptors (see table 2.1 in OMP)	3	2	6	Medium	Isolate gas	M	APD (Authorised Person Digester) to contact	N	
Biogas Systems	Boilers	None		Maintenance	P	Hours				0	Low	Planned maintenance	L	Tech 1	N	
Biogas Systems	Boilers	Sulphur compounds		Leaking of the biogas boiler system	R	Days	Receptors (see table 2.1 in OMP)	3	2	6	Medium	Isolate gas	M	APD (Authorised Person Digester) to contact	N	
Biogas Systems	Waste Gas Burner	Slight sulphide smell		Maintenance	P	Hours	Localised on site	1	1	1	Low	Planned maintenance	L	Tech 1	N	
Biogas Systems	Waste Gas Burner	Sulphur compounds		Failed to ignite; methane not burnt	R	Mins	Localised on site	3	1	3	Low	Find fault and raise job	L	Tech 1	N	Excess of gas not burnt
Odour Control Unit 1	Serving dewatering area and cake barn	Earthy smell/smell from units served			P	Hours	Receptors (see table 2.1 in OMP)	4	3	12	Medium. Loss of treatment to cake barn and dewatering equipment	Planned maintenance	M	Tech 1	N	
Odour Control Unit 1	Serving dewatering area and cake barn	Earthy smell/smell from units served		Failure of unit, media requires replacement or irrigation system fails	R	Weeks	Receptors (see table 2.1 in OMP)	5	5	25	High. Loss of treatment to cake barn and dewatering equipment	Investigate and repair ASAP	M	TM	N	Contact EHO
Odour Control Unit 2	Serving picket fence thickeners	Earthy smell/smell from units served		Maintenance	P	Hours	Receptors (see table 2.1 in OMP)	1	1	1	Low. Ventilation of covered PFTs stops, release of odour to atmosphere through leakage only	Planned maintenance	M	Tech 1	N	
Odour Control Unit 2	Serving picket fence thickeners	Earthy smell/smell from units served		Failure of unit, media requires replacement or irrigation system fails	R	Weeks	Receptors (see table 2.1 in OMP)	1	1	1	Low. Ventilation of covered PFTs stops, release of odour to atmosphere through leakage only	Investigate and repair ASAP	M	TM	N	
Odour Control Unit 3	Serving SAS storage tank, sludge screens and skips, screened SAS storage tank, blending tank, dewatering feed tank, belt thickeners, cake import building and hopper and THP feed silo	Earthy smell/smell from units served		Maintenance	P		Receptors (see table 2.1 in OMP)	3	1	3	Low	Planned maintenance	M	Tech 1	N	

Odour Control Unit 3	Serving SAS storage tank, sludge screens and skips, screened SAS storage tank, blending tank, dewatering feed tank, belt thickeners, cake import building and hopper and THP feed silo	Earthy smell/smell from units served		Failure of unit, media requires replacement or irrigation system fails	R	Weeks	Receptors (see table 2.1 in OMP)	3	1	3	Low. Ventilation of covered PFTs stops, release of odour to atmosphere through leakage only	Investigate and repair ASAP	L	TM	N	Contact EHO
Secondary Treatment	Activated Sludge Plant Lanes & Zones	Earthy smell		Maintenance	P	Hours	Localised on site	1	1	1	Low	Planned maintenance, contractors to come in monthly	L	Tech 1	N	
Secondary Treatment	Activated Sludge Plant Lanes & Zones	Earthy smell		RAS spillage	R	Days	Localised on site	2	2	4	Low	Clean ASAP	L	Tech 1	N	

SITE NAME: CRAWLEY STW

CRITICAL ODOUR ISSUES

Process Stage	Process Unit	Normal		Abnormal			Nearest Customer/ Receptor	Offensive-ness (0-5)	Likelihood of Impact (0-5)	Odour Risk (<5 Low, >15 High)	Odour Impact	Mitigation Measures	Residual Odour Impact (L/M/H)	Responsibility for Mitigation Measures	Customer Communication Needed?	Notes
		Odour Description	Constant/ Intermittent/ Occasional/ Rare	Event Description	Likelihood of Event Frequent/ Rare/ Planned	Length of Time of Release										
Primary Settlement	Primary Settlement Tanks	Sludge smell		Failure of desludge pump	R	Days	Receptors	4	3	12	Medium	Hand desludge and replace pump	L	Tech 1 and M&E	N	
Primary Settlement	Primary Settlement Tanks	Septic sludge		Scraper failure	R	Weeks	Receptors	4	3	12	Medium. Sewage can go septic	Node tank for repair / Raise job to Maintenance	L	Tech 1 and M&E	N	
Primary Settlement	Primary Settlement Tanks	Septic sludge		High level of sludge blanket	R	Days	Receptors	4	3	12	Medium	Find the cause and resolve	L	Tech 1	N	
Primary Settlement	Primary Settlement Tanks	Septic sewage		Low flows	R	Weeks	Receptors	4	3	12	Medium	Take one PST out on stage 1	L	TM	N	During summer: frequent / stage 1 only
Primary Settlement	Primary Raw Desludge Pumping	Sludge smell		Failure of desludge pump	R	Days	Receptors	4	4	16	High	Find the cause and Hand desludge	M	TM	N	
Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping - PFTs	Raw sludge smell		Failure of plant: one PFT out of service	R	Weeks	Receptors	4	3	12	Medium	Investigate cause and raise job for repair	M	Tech 1	N	
Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping - PFTs	Raw sludge smell		Sludge spillages	R	Days	Receptors	4	3	12	Medium	Clean ASAP	L	Tech 1	N	
Sludge Conditioning (Indigenous)	Thickened sludge Blending Tank	Sludge smell		Pump failure	R	Days	Receptors	4	3	12	Medium	Investigate and raise job	M	Tech 1	N	
Sludge Conditioning (Indigenous)	Thickened sludge Blending Tank	Sludge smell		Spillages	R	Days	Receptors	4	3	12	Medium	Clean up	M	Tech 1	N	
Sludge Treatment	Thermal Hydrolysis Plant - THP units	Sludgy smell		Build up of excess pressure leading to release from PFTs to reduce	R	Hours	Receptors	4	4	16	High	Isolate / Find cause and resolve	L	THP operator	N	
Sludge Treatment	Thermal Hydrolysis Plant - THP feed silo	Strong sludge smell		Blockage in conveyor or silo requiring cleaning	R	Days	Receptors	5	5	25	High	Clear blockage	L	Tech 1	N	
Sludge Treatment	Digester Feeding, Mixing & Discharge	Sulphur compounds		Whessoe valve fails	R	Days	Receptors	4	3	12	Medium	Investigate cause and raise job if needed	M	TM	N	Health and Safety issue / ERP PPC (Environmental Regulation Permit Prevention Pollution Control) license
Sludge Treatment	Digester Feeding, Mixing & Discharge	Sulphur compounds		Leaking roof	R	Months	Receptors	4	3	12	Medium	Find fault and escalate	M	TM	N	Health and Safety issue / ERP PPC (Environmental Regulation Permit Prevention Pollution Control) license
Odour Control Unit 1	Serving dewatering area and cake barn	Earthy smell/smell from units served		Maintenance	P	Hours	Receptors	4	3	12	Medium. Loss of treatment to cake barn and dewatering equipment	Planned maintenance	M	Tech 1	N	
Odour Control Unit 1	Serving dewatering area and cake barn	Earthy smell/smell from units served		Failure of unit, media requires replacement or irrigation system fails	R	Weeks	Receptors	5	5	25	High. Loss of treatment to cake barn and dewatering equipment	Investigate and repair ASAP	M	TM	N	Contact EHO