

SITE NAME: Aylesbury STW
Final Effluent Nov-23

ODOUR RISK ASSESSMENT

Process Stage	Process Unit	Applicable Legislation	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)
			Odour Description	Constant/ Intermittent/ Occasional/ Rare	Event Description	Likelihood of Event Frequent/ Rare/ Planned	Length of Time of Release							
ADD EXTRA ROWS BELOW IF REQUIRED											0	Low	-	-
Works Inlet	Incoming Sewers & Reception Wet Well	UWWTD	Sewage	C				Houses by gate	3	2	6	Medium	GRP covers over the wet well	-
Works Inlet	Incoming Sewers & Reception Wet Well	UWWTD			None identified.						0	Low	-	-
Works Inlet	Cess Reception, Discharge, Wash down & Drainage	EPR & UWWTD	Strong sewage	I				Houses by gate	4	3	12	High	Wash down facilities available	-
Works Inlet	Cess Reception, Discharge, Wash down & Drainage	EPR & UWWTD	Strong sewage	R	Spillage	R	Hours	Houses by gate	4	4	16	high	-	-
Storm Separation	Storm & Balancing Tanks	UWWTD	Sewage	I				Houses by gate	2	2	4	Low	-	-
Storm Separation	Storm & Balancing Tanks	UWWTD	Sewage	I	First flush, Crusting, Warm weather	R	Days	Houses by gate	3	2	6	Medium	Storm closed return and automatic washdown system.	L
Preliminary Treatment	Screens & Screening Conditioning, Drainage & Rag Skip Management	UWWTD	Sewage	C				Houses by gate	3	2	6	Medium	Daily check and clean down.	-
Preliminary Treatment	Screens & Screening Conditioning, Drainage & Rag Skip Management	UWWTD			Blockage, breakdown	R	Weeks	Houses by gate	4	3	12	High	Bypass. Repair	L
Preliminary Treatment	Grit Removal Equipment, Drainage & Grit Skip Management	UWWTD	Sewage	C				Houses by gate	4	2	8	Medium	Daily checks and clean down.	-
Preliminary Treatment	Grit Removal Equipment, Drainage & Grit Skip Management	UWWTD	sewage rag	R	Skips not taken	R	Days	Houses by gate	4	2	8	Medium	order replacement early. Repeat order once a week	L
Crude Sewage Transfer	Flow & Distribution to Primary Settlement Tanks	UWWTD	Sewage					Houses by gate	2	1	2	Low	-	-

Primary Settlement	Primary Settlement Tanks	UWWTD	Sewage	C				Houses by gate. Industrial estate.	2	1	2	Low	-	-
Primary Settlement	Primary Settlement Tanks	UWWTD			Blockage, breakdown. Process downstream.	R	Days	Houses by gate. Industrial estate.	4	2	8	Medium	Empty tanks, repair,	L
Primary Settlement	Fats, Oil & Grease Scum Removal System	UWWTD	Sewage	C				Houses by gate. Industrial estate.	1	1	1	Low	-	-
Primary Settlement	Fats, Oil & Grease Scum Removal System	UWWTD			Blockage, breakdowns	R		Houses by gate. Industrial estate.	1	2	2	Low	Unblock, repair.	-
Primary Settlement	Primary Raw Desludge Pumping	UWWTD	Sludge	C				Berry Fields estate	3	1	3	Low	-	-
Primary Settlement	Primary Raw Desludge Pumping	UWWTD			Pump failure	R	Hours	Berry Fields estate	4	2	8	Medium	Repair. Standby available. Clean down ASAP.	L
Settled Sewage Transfer	Flow & Distribution to Secondary Treatment	UWWTD	Earthy					Houses by gate. Industrial estate	1	1	1	Low	-	-
Secondary Treatment (Biological)	Activated Sludge Plant Lanes & Zones	UWWTD	Earthy	C				Houses by gate. Industrial estate, Berry Fields estate	1	1	1	Low	-	-
Secondary Treatment (Biological)	Activated Sludge Plant Lanes & Zones	UWWTD			Aeration failure	R	Hours	Houses by gate. Industrial estate, Berry Fields estate	1	1	1	Low	-	-
Secondary Settlement	Final Settlement Tanks	UWWTD	earthy	C				berry estate	1	1	1	Low	-	-
Secondary Settlement	Final Settlement Tanks	UWWTD			Scraper failure	R	Hours	berry estate	1	1	1	Low	Repair	-
Secondary Settlement	Scum Removal System	UWWTD	earthy	C				berry estate	1	1	1	Low	-	-
Secondary Settlement	Scum Removal System	UWWTD	earthy	I	Failure of mallards	F	Weeks	berry estate	1	1	1	Low	-	-
Secondary Settlement	RAS Chambers & Pumping	UWWTD	Earthy	I				berry estate	2	1	2	Low	-	-
Secondary Settlement	RAS Chambers & Pumping	UWWTD	Earthy	R	Failure of pumps	R	Days	berry estate	3	2	6	Medium	Replacing failed pumps ASAP and use duty standby pumps	-
Secondary Settlement	SAS Chambers & Pumping	UWWTD	Earthy	I				berry estate	2	1	2	Low	-	-
Secondary Settlement	SAS Chambers & Pumping	UWWTD	Earthy	R	Failure of pumps	R	Days	berry estate	3	2	6	Medium	Replacing failed pumps ASAP and use duty standby pumps	-
Tertiary Treatment	Filtration - Specify Type	UWWTD	Fresh Water	C				berry estate	1	1	1	Low	-	-
Tertiary Treatment	Back Wash Returns	UWWTD	Fresh Water	C				berry estate	1	1	1	Low	-	-
Final Effluent	Specify Type	UWWTD	Fresh Water	C				berry estate	1	1	1	Low	-	-
Sludge Imports	Sludge Reception, Screening, Wash down & Drainage	EPR	Sludge	I				Houses by gate	3	2	6	Medium	Wash down facilities available	-

Sludge Imports	Sludge Reception, Screening, Wash down & Drainage	EPR	Sludge		Spillage	R	Hours	Houses by gate	3	3	9	Medium		
Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping	EPR	Sludge	C				Berry Fields estate	4	2	8	Medium	Thickeners are covered and wash down available.	-
Sludge Conditioning (Indigenous)	Primary Raw Sludge Thickening & Pumping	EPR	Sludge		Blockage, breakdown. Process downstream.	R	Days	Berry Fields estate	4	3	12	High	Unblock; Repair; Resolve process.	L
Sludge Conditioning (Indigenous)	SAS Thickening & Pumping	EPR	Earthy	C				Houses by gate. Industrial estate, Berry Fields estate	1	1	1	Low	-	-
Sludge Conditioning (Indigenous)	SAS Thickening & Pumping	EPR	Earthy		None with odour impact						0	Low	-	-
Sludge Conditioning (Indigenous)	Sludge Blending & Mixing	EPR	Sludge	C				Berry Fields estate	3	3	9	Medium	Regular tranfers	-
Sludge Conditioning (Indigenous)	Sludge Blending & Mixing	EPR			Blockage, breakdown. Process downstream.	R	Days	Berry Fields estate	3	3	9	Medium	Unblock; Repair; Resolve process.	L
Sludge Conditioning (Indigenous)	Sludge Blending & Mixing	EPR									0	Low	-	-
Sludge Conditioning (Indigenous)	Return Liquors	EPR	Sludge	C				Berry Fields estate	2	1	2	Low	-	-
Sludge Conditioning (Indigenous)	Return Liquors	EPR			Blockage, breakdown.			Berry Fields estate	2	1	2	Low	-	-
Sludge Treatment	Digester Feeding, Mixing & Discharge	EPR	Earthy	C				Berry Fields estate	3	2	6	Medium	Pump house are enclosed.	-
Sludge Treatment	Digester Feeding, Mixing & Discharge	EPR			Overflow due to blockage	R	Days	Berry Fields estate	3	2	6	Medium	Unblock and clean up.	L
Sludge Treatment	Secondary Digestion, Mixing & Discharge	EPR	Earthy	C				Berry Fields estate	3	2	6	Medium	Regular tranfers.	-
Sludge Treatment	Secondary Digestion, Mixing & Discharge	EPR			Operator error	R	Hours	Berry Fields estate	3	2	6	Medium	Clean up spillage.	-
Sludge Dewatering	Digested Sludge Buffer tank	EPR	Earthy	C				Berry Fields estate	3	2	6	Medium	Regular tranfers.	-
Sludge Dewatering	Digested Sludge Buffer tank	EPR	Earthy, ammonia		Blockage, breakdown.	R	Days	Berry Fields estate	3	2	6	Medium	Clean up spillage. Repair.	L
Sludge Dewatering	Beltpress	EPR									0	Low	-	-
Sludge Dewatering	Beltpress	EPR									0	Low	-	-
Sludge Dewatering	Centrifuge	EPR	Earthy, ammonia	C				Berry Fields estate	3	3	9	Medium	Enclosed with own cover. Regular clean up.	-
Sludge Dewatering	Centrifuge	EPR			Blockage, breakdown.	R	Days	Berry Fields estate	3	2	6	Medium	Unblock, repair.	L
Sludge Dewatering	Liquor Return	EPR	Ammonia	C				Berry Fields estate	3	2	6	Medium	Regular checks on pumps.	-
Sludge Dewatering	Liquor Return	EPR			Pump failure. Long retention time. Crust formation and disturbance.	F	Days	Berry Fields estate	3	4	12	High	Repair. Empty and clean tank.	M

Sludge Storage & Movements	Cake Pad & Drainage (including imports)	EPR	Earthy, ammonia	C				Berry Fields estate	3	3	9	Medium	Regular checks on drains. Cake in storage forms a crust after a day or two reducing risk of odour. No additional turning or handling during cake storage. Imports subject to pre-acceptance checks.	-
Sludge Storage & Movements	Cake Pad & Drainage (including imports)	EPR	Earthy, ammonia	I	Cake moved about pad.	P	Days	Berry Fields estate	3	4	12	High	keep movements to a minimal	M
Sludge Storage & Movements	Vehicle Movements & Wash Down	EPR	Earthy, ammonia					Houses by gate. Industrial estate, Berry Fields estate	3	2	6	Medium	Keep movements to a minimal, clean as and when	-
Sludge Storage & Movements	Vehicle Movements & Wash Down	EPR	Earthy, ammonia		Cake removed from site	P	Days	Houses by gate. Industrial estate, Berry Fields estate	3	4	12	High	Covered wagons in use.	L
Biogas Systems	Biogas Storage	EPR	Biogas	C	-	-	-	Berry Fields estate	1	1	1	Low	-	-
Biogas Systems	Biogas Storage	EPR	-	-	Venting, damaged gas vessel, valve or pipework.	R	Hours	Berry Fields estate	2	1	2	Low	Out of service, use flare stack.	-
Biogas Systems	CHP	EPR	Biogas	C	-	-	-	Berry Fields estate	1	1	1	Low	-	-
Biogas Systems	CHP	EPR	-	-	Creating noxious fumes	R	Days	Berry Fields estate	2	1	2	Low	Service engine.	-
Biogas Systems	Boilers	EPR	-	-	-	-	-	Berry Fields estate	1	1	1	Low	-	-
Biogas Systems	Boilers	EPR	-	-	None identified.	-	-		1	1	1	Low	-	-
Biogas Systems	Waste Gas Burner	EPR	Biogas	-	-	-	-	Berry Fields estate	1	1	1	Low	-	-
Biogas Systems	Waste Gas Burner	EPR	-	-	None identified.	-	-		1	1	1	Low	-	-

Responsibility for Mitigation Measures	Customer Communication Needed?	Notes
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-	-	Covered.New inlet due early 2014
-	-	
-	-	tankers to wash down any spillages after loads. Sludge also delivered thought cess logger
-	-	tankers would not be allowed to tip at Aylesbury
-	-	
PM	N	Storm tanks returned as soon as flow has dropped and cleaned down
-	-	
PM	N	to have spares on site, unblock any issues and repair anything that needs replacing
-	-	
PM	N	get them on a weekly collection or book in advance when you know they will be full to insure collection
-	-	Floc chambers. Under modification.

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TM	-	Could be impacted by downstream processes
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-	-	Transfer station by sludge processing.
PM	N	Could impact on PSTs
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-	-	No longer takes imported sludge all through the cess logger now

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PM	N	Could impact on PSTs
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PM	N	Could impact on PSTs
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-	-	System to be automated.
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PM	N	
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-	-	
PM	N	
-	-	
PM	N	Tank unsuitable for purpose, large surface area.

