

Southern Water Budds Farm Sludge Treatment Work Permit Application – Response to Environment Agency

Environment Agency reference:	EPR/KB3435RB/V002	Date:	15 th January 2025
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Table 1: Response to Environment Agency

Topic of relevancy	Question no.	Question	Response
Payment details	N/A	 Unfortunately the application payment you sent is incorrect. The correct application charge may be as follows, but will be subject to confirmation of the activities being applied for: £25,937. Following confirmation of the activities we will confirm the final charge. Application fee £13,984 application fee for S5.4 A (1) (b) (i) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment. Application fee to vary the existing HoW activity and add new EWC codes - £3,965 	In the original application Southern Water have paid £21,594 on 04/03/2022 (remittance no: 450142058). The evidence of payment (along with all payment to the Environment Agency with 'PSCAPPSOUTH') is provided in the table below.

Topic of relevancy	Question no.	Question	Respons	e					
		 Application fee for the physical treatment of non-has 	ardous 0330274931	ZV00 KR	PSCAPPSOUTH337 31.12.2024 08.01.2025 31.12.2024	9 31.12.2024	1,207.00-	B 450183198	09.01.2025
		waste relating to temporary storage of cake and oth	er 0330274451 0330274351	ZV00 KR 1	PSCAPPSOTH004 02.12.2024 05.12.2024 02.12.2024 PSCAPPSOTH004 01.10.2024 03.10.2024 01.10.2024	8 02.12.2024	8,979.40-	B 450181996 B 450178961	10.12.2024
		wastes – 1.16.12 - £3,965	0330270199 0330269164 0330269165	ZV00 KR 2 ZV00 KR 2 ZV00 KR 2	PSCAPPSOUTH002 05.09.2024 10.09.2024 05.09.2024 PSCAPPSOUTH003 03.09.2024 03.09.2024 03.09.2024 PSCAPPSOUTH007 03.09.2024 03.09.2024 03.09.2024	7 05.09.2024 0 03.09.2024 0 03.09.2024	2,379.00- 2,379.00- 1,586.00-	B 450177972 B 450177592 B 450177592	12.09.2024 03.09.2024 03.09.2024

Application fee for the dewatering activity – 1.16.12 - £793

Additional Assessments

- Odour management plan a fixed charge of £1,246
- Habitats assessment a fixed charge of £779
- Emissions management plan (BRA) £1,241

VAJUETTEJA	6400	0.0	ENGREENVYANDU/	VALABIAVA'	VV-VA-AVES	VA-10-0703	1080	VA-AB-BVB7		A7 60 / 1 00-		400100100	VP+VA+BVAV	
0330274481	ZV00	KR	PSCAPPSOUTH001	10.12.2024	12.12.2024	10.12.2024	6	10.12.2024		793.00-	8	450182290	16.12.2024	
0330274351	ZV00	KR	PSCAPPSOUTH004	02.12.2024	05.12.2024	02.12.2024	8	02.12.2024		8,979.40-	B	450181996	10.12.2024	
0330270698	ZV00	KR	PSCAPPSOUTH006	01.10.2024	03.10.2024	01.10.2024	7	01.10.2024		4,758.00-	B	450178961	08.10.2024	
0330270199	ZV00	KR	PSCAPPSOUTH002	05.09.2024	10.09.2024	05.09.2024	7	05.09.2024	1	2,379.00-	B	450177972	12.09.2024	
0330269164	ZV00	ER	PSCAPPSOUTH003	03.09.2024	03.09.2024	03.09.2024	0	03.09.2024		2,379.00-	B	450177592	03.09.2024	
0330269165	ZV00	KR	PSCAPPSOUTH007	03.09.2024	03.09.2024	03.09.2024	0	03.09.2024		1,586.00-	B	450177592	03.09.2024	
0330266918	ZV00	KR	PSCAPPSOUTH007	28.06.2024	11.07.2024	28.06.2024	18	28.06.2024		2,639.00-	B	450175540	16.07.2024	
0330266919	ZV00	KR	PSCAPPSOUTH001	28.06.2024	11.07.2024	28.06.2024	18	28.06.2024		5,206.00-	B	450175540	16.07.2024	
0330254789	ZV00	RR	PSCAPPSOUTH017	31.10.2023	13.11.2023	31.10.2023	14	31.10.2023		2,295.00-	8	450165968	14.11.2023	
0330218415	2700	KR	PSCAPPSOUTH0017	28.06.2022	01.07.2022	28.06.2022	7	28.06.2022	0	3,931.00-	8	450146637	05.07.2022	
0330217870	ZV00	KR	PSCAPPSOUTH0017	10.05.2022	04.06.2022	10.05.2022	28	10.05.2022		21,594.00-	B	450145609	07.06.2022	
0330217872	ZV00	KR	PSCAPPSOUTH0018	10.05.2022	05.06.2022	10.05.2022	28	10.05.2022		23,180.00-	8	450145610	07.06.2022	
0330217873	2700	HR	PSCAPPSOUTH0019	10.05.2022	05.06.2022	10.05.2022	28	10.05.2022		25,176.00-	8	450145611	07.06.2022	
0330210876	2700	NR.	PSCAPPSOUTHOOL6	01.03.2022	01.03.2022	01.03.2022	0	01.03.2022	-	21,594.00-	8	450142057	01.03.2022	
0330210877	ZV00	RR	PSCAPPSOUTH0015	01.03.2022	01,03.2022	01.03.2022	0	01.03.2022		21,594.00-	B	450142058	01.03.2022	
0330206863	2000	68	PSCAPPCOUTHNOR	08.12.2021	08.12.2021	08.12.2021	0	08.12.2021	-	6,279.00	Ð	450139314	08.12.2021	
0330205292	ZV00	RR	PSCAPPSOUTH0012	27.10.2021	06.11.2021	27.10.2021	13	27.10.2021		19,629.00-	B	450138226	09.11.2021	
0330205293	2V00	KR	PSCAPPSOUTH0013	27.10.2021	06.11.2021	27.10.2021	13	27.10.2021		25,972.00-	B	450138227	09.11.2021	
0330205294	ZV00	HTR.	PSCAPPSOUTH0014	27.10.2021	06.11.2021	27.10.2021	13	27.10.2021		19,215.00-	B	450138228	09.11.2021	
0330205314	2700	KR	PSCAPPSOUTHWARN	25.10.2021	09.11.2021	25.10.2021	15	25.10.2021		3,350.00-	B	450138229	09.11.2021	
0330201346	ZV00	KR	PSCAPPSOUTH0010	20.09.2021	21.09.2021	20.09.2021	1	20.09.2021		21,215.00-	8	450136484	21.09.2021	
0330201347	ZV00	RR	PSCAPPSOUTH0011	20.09.2021	21.09.2021	20.09.2021	1	20.09.2021		18,388.00-	B	450136485	21.09.2021	
0330199631	ZV00	RR	PSCAPPSOUTH0009	06.08.2021	09.08.2021	06.08.2021	4	06.08.2021		1,241.00-	B	450135245	10.08.2021	
0330199632	ZV00	KR	PSCAPPSOUTH0007	06.08.2021	09.08.2021	06.08.2021	4	06.08.2021		5,206.00-	8	450135246	10.08.2021	
0330199633	ZV00	KR	PSCAPPSOUTH0008	06.08.2021	09.08.2021	06.08.2021	4	06.08.2021		5,206.00-	B	450135247	10.08.2021	
0330191239	ZV00	KR	PSCAPPSOUTH001	16.03.2021	26.03.2021	16.03.2021	13	16.03.2021		16,009.00-	B	450130529	29.03.2021	
0330191240	ZV00	KR	PSCAPPSOUTH002	16.03.2021	26.03.2021	16.03.2021	13	16.03.2021		16,009.00-	B	450130530	29.03.2021	
0330191241	2V00	KR	PSCAPPSOUTH003	16.03.2021	26.03.2021	16.03.2021	13	16.03.2021		14,611.00-	B	450130531	29.03.2021	
0330189426	ZV00	KR	PSCAPPSOUTH175	05.03.2021	03.03.2021	05.03.2021	4	05.03.2021		3,688.80-	B	450129838	09.03.2021	
0330189427	ZV00	KR	PSCAPPSOUTH176	05.03.2021	03.03.2021	05.03.2021	4	05.03.2021	1	3,688.80-	B	450129838	09.03.2021	
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Our records show that Southern Water have paid for:

Application fee

- 1.16.2.1 £13,984 application fee for S5.4 (1) (b) (i) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment.
- 1.10.2 £1,965 minor variation of combustion permit
- 1.16.12 £2,379 minor variation of physical treatment of nonhazardous waste
- 1.19.2 Habitats assessment a fixed charge of £779
- 1.19.5 Emission Management Plan a fixed charge of £1,241
- 1.19.6 Odour management plan a fixed charge of £1,246

SWS has confirmed there is no temporary storage of cake and other wastes (grit and screenings).

SWS has confirmed there is acceptance of digestate for dewatering.

SWS has confirmed they accept of wastes to the head of works in the form of cess and chemical toilet waste, but this is already covered under the permit AP3392HG which is being varied.

We believe the correct application fee based on below is £21,994.

Therefore, an additional payment of £400 is required for:

Topic of relevancy	Question no.	Question	Response
			 1.16.12 - Physical treatment of non-hazardous waste to vary the activities on permit AP3392HG - £3,965 at 50% 1.16.12 - Acceptance of digestate for dewatering £793 at 10%.
			1.10.2 - minor variation of combustion permit (non MCPD/SG) - £1,965, which is not required as this is included under 1.16.2.1 - installation fee for - S5.4 (1) (b) (i) activity.
			1.16.12 – £2,379 minor variation of physical treatment of non-hazardous waste, which should be £3,965.
			Based on the above the remaining amount of £400 will be paid into acct #10014411, sort code 607080. The payment will be in the Environment Agency's account by 28th January 2025. Payment ref is PSCAPPSOUTH235.
Diesel Generators – permit EPR/ZP3235X	1	You have identified permit EPR/ZP3235XJ/V005 containing two CHP engines and two boilers which will be directly associated activities (DAAs) to the Section 5.4 activity. This permit also contains:	The diesel generators are not DAAs to the Section 5.4 activities. As we are varying the existing waste permit, the current combustion permit will remain but the CHPs and boilers will be removed, as they are DAAs under the S5.4 activity, as part of the permit application.
J/V005		avoidance, emergency use and testing, operating for up to 80 hours per annum; and	It is assumed that no other information is required for this.
		 A 4.6 MWth back-up generator that operates during emergency situations only. 	information.
		It is unclear if the generators are DAA's to the Section 5.4 activity you have applied for. Please confirm whether the two 4.6 MWth generators are DAAs to the Section 5.4 AD activity.	
Site layout plan	2	You have provided '790101_SiteLayoutPlan_BUD February 2024.' The permit boundary supplied does not match the permitted boundary for EPR/AP3392HG. Update and resubmit '790101_SiteLayoutPlan_BUD February 2024' to include the full permit boundary. Please note you will need to ensure that all documents that include this site plan are also updated, or remove it and reference the updated plan.	790101_SiteLayoutPlan_BUD January 2025 has been updated to include the full permit boundary.
			In addition, all documents that include this site plan have also been updated, and now just reference the updated plan.
			The site layout plan has been removed from the OMP (790101_ERA_OdourMP_BUD January 2025) but does make reference to the updated plan.

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Topic of relevancy	Question no.	Question	Response			
Sludge Drying plant	3	You mention a sludge drying plant in the application and have advised that "the sludge dryer has been mothballed" and state that "the variation application is to change permit EPR/AP3392HG into an installation permit and consolidate EPR/ZP3235XJ. It is intended that non-hazardous imported Southern Water owned tankered waste disposal activity, specified generator and AD Installation waste recovery activity will be separate listed activities on a single consolidated Installation permit." On initial review of your application you have not included the sludge drying plant as an asset on your site layout plan, identified emission points for the plant within your emission point plan, or demonstrated how this activity interacts with your existing permitted processes.	There is not and never referenced in error in remove this error.	er has been a drye the application. T	er activity on the Si he documents hav	ite. This has been ve been updated to
		 a) Please clarify the situation regarding the sludge drying plant. b) Explain using guidance 'Understanding the meaning of regulated facility' (RGN2) (<u>https://assets.publishing.service.gov.uk/government/uploads/system/</u>uploads/attachment_data/file/964487/LIT_6529.pdf) if this will be a directly associated activity (DAA) to the Section 5.4 anaerobic digestion activity. 				
		c) If this is a DAA provide an assessment against BAT, and update all relevant documents, site plans, emission points etc to include the activity.				
		d) If this is not a DAA update all relevant documents and site plans (Odour, BRA, LDAR, waste acceptance, site plans, etc) to include the drying plant waste activity.				
Boilers	4	4 The Non-Technical Summary refers to 3 dual fuel boilers operating for 700, 500, and 350 hours per annum. However, Table 6.2.1 Emissions to Air refers to one "boiler and standby boiler as per EPR/ZP3235XJ". Please clarify this, confirming the operating hours for each boiler by	There are 3 dual fuel standby boilers operating on biogas/natural gas. Boiler 3 is currently out of action. The boilers are typically only operated when the CHP engines are offline to keep the AD temperatures consistent. However, there is only one emission point as the boilers share the same stack.			
		accordingly.	on an annual basis.			
			Diagon Hours Dura	Boiler 1	Boiler 2	Boiler 3
			May 2023-May 24)	1260.00	542.00	331.00
			Nat Gas Hours Run: (May 2023-May 24)	1.00	0.00	1.00

Topic of relevancy	Question no.	Question	Response
Flare operation	5	 BAT 15 states that "BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques given below", which are identified as "providing the correct plant design which includes the provision of a gas recovery system with sufficient capacity, and plant management which includes balancing the gas system and using advanced process control." These statements do not meet BAT 15 and 16 and proposals must be submitted with your application. a) Provide your solution for compliance with BAT 15 and BAT 16. b) Explain if you current flare is monitored and how many hours on average it is operating, c) If it is operating over then update your air quality impact assessment to include the flare. 	Rating KW800-1160kW 920kW Output800-1160kW 920kW Output800-1160kW 920kW OutputRating MWth2.812.812.81All supporting documents (790101_MSD_Main_BUD January 2025 and 790101_ERA_BUD January 2025) have been updated accordingly.300-1160kW 920kW OutputGas modelling shows the site experiences annual flaring of 448 hours (5.1% of time).448 hours (5.1% of time).The existing flare will be retained at this site for operation during maintenance or emergency. The CHP is planned for replacement.Testing of the flare has shown the flare emissions are compliant. Additional work is required to ensure all BAT requirements are met (e.g.
Open tanks	6	On review of aerial photographs we are unclear if you have open tanks within your permit boundary. Under BAT conclusion 14 you must ensure that diffuse emissions are contained. This includes techniques such as storing, treating and handling waste and material that may generate diffuse emissions in enclosed buildings and/or equipment, and collecting and directing the emissions to an appropriate abatement system. If digestate is still biologically active, and you are producing combustible biogas you must take steps to collect the biogas.	 a) A list of tank names and volumes, along with whether they are open or covered is presented in a table at the bottom of this response document. Relevant supporting documents have also been updated for consistency. b) Southern Water confirm that they will undertake an assessment of the digestate stability (identified in the Implementation Plan), the outcome of that assessment will be provided within 6 months of permit issue. This is all part of wider ongoing discussions and is considered to require outcomes from testing to be able to determine appropriate solutions.

Topic of relevancy	Question no.	Question	Response
		 Biogas should not be vented to the environment. If the source does not produce an explosive environment (i.e. less biologically active) you will need to propose plans to enclose, collect and direct the waste gas emissions to an appropriate abatement system. a) Provide a list of all tanks used within the process that you are applying to permit. Confirm the tank volume and weather they are enclosed or open. b) For all open tanks, confirm that you will undertake the following: i. If digestate is still biologically active and you are producing combustible biogas you will take steps to collect the biogas and direct this to your gas collection system in line with BAT 14. ii. ii. For open tanks that do not produce an explosive environment (i.e. less biologically active) you will enclose, collect and direct the waste gas emissions to an appropriate abatement system in line with BAT 14 and 34. 	Southern Water confirm that if digestate is still biologically active and combustible biogas is produced they will take steps to collect the biogas and direct this to their gas collection system in line with BAT 14. Also, for open tanks that do not produce an explosive environment but have been determined to require abatement for other purposes they will enclose, collect and direct the waste gas emissions to an appropriate abatement system in line with BAT 14 and 34.
Process flow	7	The process flow provided in 790101_MSD_Schematic_BUD February 2024 does not include the waste activities. Update your process flow to clearly show all relevant assets and	Updated process flow diagram, has been provided as doc ref 790101_MSD_Schematic_BUD January 2025.
		ensure all activities to be permitted are included.	
Site Condition report (SCR)	8	On review of your site condition report, not all information referred to is supplied.	The Landmark Envirocheck Report ad any other supporting document has been provided (doc ref 790101_MSD_SCR_BUD APP B Envirocheck).
		Provide "Appendix B. Landmark Envirocheck Report", and all supporting information	The supporting information listed in the SCR is for reference only as information sources used to provide the content in the SCR. The sources and the dates accessed have been updated but the information itself cannot be provided and have not been asked for in previous NDM queries.
			The SCR (doc ref 790101_MSD_SCR_BUD January 2025) has also been updated to remove any reference to activities in the wider WtW, which do not form part of the permit boundary, as per previous NDM Rfl's have requested.
Missing document	9	On review of your application we cannot locate the following documents. (Note your application will not be duly made until these have been checked):	The updated ADBA Tool (790101-MMD-IED-BUD-CA-C-001 ADBA Tool P02 January 2025) supersedes the previously submitted model files.
		 790101-MMD-IED-BUD-CA-C-001 Do nothing(Tank Failure Only) 	

Topic of relevancy	Question no.	Question	Response
		 790101-MMD-IED-BUD-CA-C-001 Do nothing(With Rainfall) 790101-MMD-IED-BUD-CA-C-001 Option 1(Tank Failure Only) 790101-MMD-IED-BUD-CA-C-001 Option 1(With Rainfall) 790101-MMD-IED-BUD-CA-C-001 Option 2(Tank Failure Only) 790101-MMD-IED-BUD-CA-C-001 Option 2(With Rainfall) Provide a secondary containment report that clearly identifies the containment solution proposed, the containment volumes, and an explanation of how your proposals meet BAT and CIRIA C736. Please note that a failure to clearly address this key risk will result in this application being returned. 	
Odour Control unit	10	You have identified emission point A09 as a 'wet scrubber'. BAT 34 requires that "Water, acid or alkaline scrubbers are used in combination with a biofilter, thermal oxidation or adsorption on activated carbon." Explain how you will meet BAT 34 for the wet scrubber.	Budds Farm has a wet chemical scrubber with no carbon filter. Southern Water is progressing detailed survey and assessment of the existing OCUs to understand any additional measures that may be required to meet BAT 34 and 53.
Emissions to air from odour control unit	11	Under BREF guidance BAT conclusion 8, BAT is to monitor channelled emission to air at agreed frequencies and standards. On review of submission you have identified the monitoring of H2S and NH3, however we can see no mention of parameters for the 'Treatment of water-based liquid waste' (TVOC and HCI), or evidence that TVOC and HCI have not been identified as relevant in the waste gas stream. Your activity includes prior to the AD process (the biological treatment of waste) the thickening and dewatering process which is a directly associated activity of the AD process. The odour control units identified serve this directly associated activity. The BAT AELs are appropriate for the activity defined under the BREF as 'Treatment of water-based liquid waste'. The BREF provides examples of wastes that would be considered as water-based liquid wastes. These include wastes under the category '19 08 wastes from waste water treatment plants not otherwise specified'. The treatment of this waste in the dewatering and thickening stage and the subsequent emissions to air from connected abatement could be subject to the BAT AELs specified within BAT conclusion 8.	Southern Water confirm that characterisation of emissions from the odour control units will be undertaken in line with BAT 3 to demonstrate if TVOC and HCl are present in the waste gas stream. If TVOC and HCl are identified as relevant in the waste gas streams Southern Water will monitor these emissions in line with BAT requirements. The Odour Management Plan has been updated. Table 8 of the OMP to reflect the above commitments, document reference 790101_ERA_OdourMP_BUD January 2025.

Topic of relevancy	Question no.	Question	Response
		 a) Confirm that you will characterise emissions from the odour control units in line with BAT 3 to demonstrate if TVOC and HCI are present in the waste gas stream. b) Confirm that if TVOC and HCI are identified as relevant in the waste gas streams that you will monitor these emission in line with BAT requirements. 	
Activity Capacity	12	 Table 6.1 of your main supporting document advises that you are applying for an annual capacity of 363,175m3 per annum, or 995m3 per day for the AD. his volume seems low in relation to the dewatering process and we require further confirmation that this volume is correct. Also your volume must be provided in tonnes not meters cubed. Provide the following information: a) Total tonnage of indigenous and imported wet tones to be received at the sludge treatment centre per annum. b) Total tonnage per annum to be accepted at the anaerobic digesters c) C) Digester hydraulic retention time 	 This has been added into the 790101_MSD_Main BUD January 2025. a. Total tonnage of indigenous and imported wet tones to be received at the sludge treatment centre per annum. 1,126,898 wet tonnes. b. Total tonnage per annum to be accepted at the anaerobic digesters is 358,544 wet tonnes. C. Digester hydraulic retention time minimum standard is 14 days – average measured for the site is 17.4days. The annual throughputs through the Peacehaven STC is presented in 790101_AnnualThroughput_BUD January 2025.
Waste code accepted	13	 You have provided table 'A.1 Waste imported for anaerobic digestion'. This table includes EWC code 16 10 02. To accept a varied list under 16 10 02 would cause the digester outputs to fall outside of the sludge use in agriculture regulations meaning that your site would be undertaking co-digestion. As such we require further information on the classification of this waste. a) Provide the source of 16 10 02 that you intend to accept for anaerobic digestion. b) Explain why accepting 16 10 02 would not be co-digestion. c) If you are applying for co-digestion, update and re-submit your application to reflect co-digestion. d) If you do not require 16 10 02 for acceptance to the anaerobic digestion process confirm that this code is to be removed. Table A.2 – please note that we do not permit controlled waste regulation codes, as such these will not be included on any permit issued.	Southern Water confirm that the code 16 10 02 is to be removed from tables referring to 'Wastes imported for Anaerobic Digestion', as the intention is not for co-digestion at this site. In addition, Southern Water acknowledge these waste codes listed under 'Wastes received under the Controlled Waste Regulations 2012 'will not be included in a permit. The Main Supporting Document and Odour Management Plan have been amended and provided separately (doc ref 790101_MSD_Main_BUD January 2025 and 790101_ERA_OdourMP_BUD January 2025 respectively). The latest version removes the 16 10 02, and caveats that controlled waste will not feature on the permit.

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Topic of relevancy	Question no.	Question	Response
Import of grit and14You have identified in the import of grit and skips on-site, and 19from sewer cleaning and the temporary storage of 	You have identified in Table A.3 - 19 08 01, 19 08 02 and 19 09 01 for the import of grit and screenings from sewer cleaning for receipt at skips on-site, and 19 06 06 for the temporary storage of digested sludge. It is our understanding that these wastes will not undergo anaerobic digestion and as such this activity is not a DAA to the section 5.4 activity but a separate waste activity. In order to progress this activity you will need to provide all information identified within our application process, this includes but is not limited to the below.(please note it is your responsibility to ensure that information is provided in line with our requirements, failure to provide this will mean that we will not be able to progress this element of your application: a) Payment as identified above b) Non-technical summary, and process flow including how you will keep this activity separate from your installations activity (https://www.gov.uk/guidance/waste-environmental-permits) c) Assessment against Non-bazardous and inert waste:	 Southern Water confirms that Budds Farm STC does not accept the: import of grit and screenings from sewer cleaning; or import og digested cake for temporary storage. Therefore, no further response is required for this query.	
		 c) Assessment against roor-inazardous and ment waste. appropriate measures for permitted facilities HTTPs://www.gov.uk/guidance/non-hazardous-and-inert- waste-appropriate-measures-for-permitted-facilities d) Completion of relevant forms – B4 new bespoke waste operation - https://www.gov.uk/government/publications/application-for- an-environmental-permit-part-b4-new-bespoke-waste- operation e) Updating and inclusion of this activity in all relevant management plans such as the Odour management plan, accident management plan, residue management plan etc. 	
Dewatering activity	15	You have identified EWC code 19 06 06 which you have stated is accepted for "intersite transfers of post digested liquid sludge as per EMS480. Common example of this is if centrifuges are offline which necessitates exports of digested liquid. Definition is with reference to RPS231. https://www.gov.uk/government/pub locations/waste-codes- for-sewagesludge-and-sludge-containingother-materials-rps-231/waste codes-for sewage-sludge-and-sludge." It is our understanding that these wastes will not undergo anaerobic digestion and as such this activity is not a DAA to the section 5.4 activity but a separate waste activity (if less than 50 tonnes per day). In order to progress this activity you will need to provide all information identified within our application process, this includes but is not limited to the below. a) Payment as identified above	 Southern Water confirms that Budds Farm STC does accept digestate for dewatering. a) Payment is identified above b) The non-technical summary of the main supporting document (document reference 790101_MSD_Main_BUD January 2025) has been updated, and throughout where applicable, to show the application is for three activities: Anaerobic digestion of sludge Acceptance of liquid sludge (digestate) at post digestion, for dewatering Digestate liquid sludge is accepted into the Site, on a non-routine basis (or in an 'emergency' for example when a centrifuge is out of

Topic of relevancy	Question no.	Question	Response
		 b) Non-technical summary, and process flow including how you will keep this activity separate from your installations activity (https://www.gov.uk/guidance/waste-environmental-permits)" c) Assessment against Non-hazardous and inert waste: appropriate measures for permitted facilitieshttps://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities d) Completion of relevant forms – B4 new bespoke waste operation - https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation e) Updating and inclusion of this activity in all relevant management plans such as the Odour management plan etc 	 action at another site). Procedures are being established to ensure there is no cross-contamination. Evidence of its existing acceptance is in doc ref 790101_WasteTransferNotes BUD January 2025, although it has historically been incorrectly coded as 19 08 05 (NPS are aware from SWS other permit applications and SWS are ensuring that it is correctly coded in the future). c) The appropriate measures assessment has been provided as 790101_AppropriateMeasures BUD January 2025. d) The B4 form has been completed and is provided as 790101_PartB4_BUD January 2025 e) The relevant documents have been updated to include this activity.
Waste water emissions during storm overflow conditions at the WwTW	16	 Routine emissions to the WwTW from the installation will be controlled via monitored emission limits as an indirect discharge (as defined in the Waste Treatment BREF). However, as WwTW periodically discharge sewage during storm conditions, it's possible that waste water from the installation could bypass the WwTW treatment processes and be emitted as a direct discharge to water. It is not clear from the application how this abnormal situation will be prevented. Operators of environmental permits cannot emit waste waters directly to surface waters without detailed risk assessment. You must therefore have procedures to prevent the discharge of waste water from the installation from bypassing the WwTW treatment processes directly to surface water during storm overflow conditions. a) Provide written procedures which describes the site's contingency arrangements to prevent digestate and effluent being discharged off site while the WwTW are in storm conditions. b) Provide a description of the buffer storage proposals to control or hold emissions to the event of storm overflow conditions at the WwTW c) Should any contingency arrangements use storage tanks to act as a buffer, provide evidence that demonstrates the waste waters or digestates can be held in this storage during the period of storm overflows. 	 Flows to site are dealt with in two locations. Sewage from the Portsmouth subcatchment is managed offsite between Henderson Road, Eastney WPS and Fort Cumberland WPS. Sewage from Havant sub-catchment, Penner Road WPS and 'Stock Haying Island WPS' is received to site. Storm separation occurs upstream of the liquor returns and as such all liquor returns follow the WtW process. Therefore, it is not possible for return liquors to directly discharge into the environment from the installation, without it receiving full treatment in the WtW. Tankered trade and domestic waste including cess and chemical toilet waste are not received during storm. Southern Water will provide a wastewater and digestate buffer storage plan (listed in regard to BAT 4 in the Implementation Plan document reference 790101_MSD_Implementation Plan December 2023), where appropriate. The Plan's purpose is to propose and describe site contingency arrangements to provide appropriate storage capacity or other appropriate measures to prevent or minimise emissions of wastewater or digestate being discharged off site during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions. It is understood the Plan will be required to include, but not be limited to:

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			 Calculation of a reasonable contingency capacity of waste water and/or other digestate during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions. A description and design specification of the buffer storage infrastructure and secondary containment measures. The design shall be completed by an appropriately qualified engineer and secondary containment shall be designed in line with CIRIA C736. A program of works with timescales for the implementation and construction of the buffer storage. A preventative maintenance and inspection regime.
Waste acceptance and pre- acceptance	17	You have advised in 'Southern water – Duty of care' that "There are no specific pre acceptance procedures for sludge imports, they are acceptable for importing to any of Southern Water's 16 permitted Sludge Treatment Centres (STCs". This does not meet the requirements of BAT 2.	The waste acceptance and pre-acceptance procedure is provided as 790101_WasteAcceptance_BUD January 2025.
Indirect emission to water	18	 You have identified indirect emissions to water from: Condensate from the gas pipelines and gas storage bag Boiler blow down to minimize damage from high mineral content water Drain down of plant Uncontaminated roof water from buildings. Run off from impervious surfaces Domestic facilities (note this would not be permitted as part of the installation) Washwater This however does not seem to include all emissions such as liquors returning to the head of works. To confirm the WwTW does not form part of your permit boundary, effluent discharged to the head of the works/WwTW is a point source emission to sewer. BAT conclusion 3 requires operators to have an emissions inventory for the effluent. You must identify all emissions and clearly identify where these can be sampled and where they will leave the site boundary." 	 a) The Site Layout Plan (document reference 790101_MSD_SiteLayoutPlan_BUD January 2025) has been updated to indicate the emission points and monitoring locations listed under bullets points b, e, f, g & h. b) Document reference 790101_Sampling proposal_BUD January 2025 is provided to address the following, in relation to the indirect emissions to water and covering point d. c) Table 6.3 of the main supporting document (790101_MSD_Main_BUD January 2025) has been updated to identify all relevant indirect emissions to water, ensuring that it reflects the site plans provided. d) Written statement with a commitment to undertake the sampling and analysis in line with the 'Non-hazardous and inert waste: appropriate measures for permitted facilities. Document 790101_Sampling proposal_BUD January 2025 also provides a summary of the sampling and analysis methodology of the effluent discharged in order to specify the likely pollutants in the effluent. As well as a written statement with a commitment that those undertaking the sampling and analysis will be by accredited to MCERTs or provide evidence of equivalent standards.
		emissions to water are included, and clearly explain which emission point includes which waste water stream.	

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relevancy	no.	 b) Include your emission/sampling point for the HoW waste activity and strategic storage facility ensuring that these are representative of the discharge. c) Update table 6.3 of your main permit application to identify all relevant indirect emissions to water, ensuring that it reflects the site plans you have provided." d) Provide a written statement with a commitment to undertake the sampling and analysis in line with BAT 3. e) You have identified emission point "Domestic facilities", domestic facilities will not be regulated as part of this permit and should be removed from your application. f) You have identified "Condensate from the gas pipelines and gas storage bag", "Boiler blow down to minimise damage from high mineral content water" and "Runoff from impervious surfaces" however it is not clear where these emissions will be released on site or sampled. Provide separate emission points and sampling point locations for these emissions. g) You have identified "Uncontaminated roof water from new buildings". To discharge uncontaminate in groundwater 	
		 clean rainwater from roofs (as explained in groundwater protection position statement G12) or from small areas of hardstanding to surface water you will not require emission limits, however the location on your site plan should be clear so that it can be included in any permit issued. Provide the locations and NGRs for all "Uncontaminated roof water from new buildings" and ensure these emission points are clearly marked on any emission point plan. h) You have identified "Washwater from the washing down of mechanical equipment during maintenance activities" and "Drain down of plant" as intermittent releases. Confirm where these will be emitted and sampled prior to discharge. 	
Existing head of the works (HoW) activity	19	You have provided table A.3 'wastes to import under a waste activity'. This includes new EWC codes in the form of 02 02 02, 19 09 02 and 19 09 06. For existing wastes we would consider these wastes as existing operations and would look to implement an improvement condition to assess the fate of impact of the substances emitted to water. The IC would also be in line with the requirements of 'Non-hazardous and inert waste: appropriate measures for permitted facilities' section 6.4 https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities/6-emissions-control.	Southern Water has confirmed they are accepting wastes to head of works, in the form of domestic tankered waste (cess and chemical toilet waste) and tankered trade waste. A non-technical summary is provided in the MSD (790101_MSD_Main_BUD January 2025). All relevant management plans have been updated as applicable,

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		 For waste not currently imported to the head of works we would require an assessment of the fate and impact of the substances emitted to water and sewer following the Environment Agency's risk assessment guidance, and this would not be able to be captured in any improvement condition implemented. Therefore, please provide: a) Evidence that you are currently accepting 02 02 02, 19 09 02 and 19 09 06. (Note: This can be a single waste transfer note demonstrating that this waste stream has been accepted at site.) b) If you are not currently accepting the EWC code identified, provide an assessment of the fate and impact on the receiving waters in line with the Environment Agency's risk assessment guidance. c) Confirm the EWC codes to be accepted at the head of works and the total 	 a) Evidence of waste transfer notes for waste received under these codes are presented in 790101_WasteTransferNotes_BUD January 2025. b) Where evidence cannot be provided for the existing acceptance of a waste stream this will be removed from the application and the permit varied later, if applicable. The site layout plan (790101_MSD_SiteLayoutPlan_BUD January 2025) has been updated to include emission and sampling points for the effluent discharge from the HoW activity. c) The EWC codes to be accepted at the HoW and the total wet tonnage per annum is provided in Appendix A 790101_MSD_Main_BUD January 2025.
Head of works In-direct emission point	20	 The head of works waste activity is discharged to the Wastewater Treatment Works. Effluent discharged to the head of the works is a point source emission to sewer. The 'Non-hazardous and inert waste: appropriate measures for permitted facilities' requires operators to assess the fate and impact of the substances emitted to water and sewer following the Environment Agency's risk assessment guidance. We acknowledge that applicants may not hold this information in order to inform a quantitative risk assessment for existing discharges. For this application provide the following information: a) Provide a summary of the sampling and analysis methodology of the effluent discharged and specify the likely pollutants in the effluent (guidance here Monitoring discharges to water: guidance on selecting a monitoring approach - GOV.UK (www.gov.uk) and Surface water pollution risk assessment for your environmental permit - GOV.UK (www.gov.uk)). b) Provide a written statement with a commitment to undertake the sampling and analysis in line with the 'Non-hazardous and inert waste: appropriate measures for permitted facilities' c) Provide a written statement with a commitment that those undertaking the sampling and analysis will be by accredited to MCERTs or provide evidence of equivalent standards. 	 a) A proposed sampling plan has been provided as 790101_Sampling proposal_ BUD January 2025. b) The proposed sampling plan includes Southern Water's committed to undertake the sampling and analysis in line with the 'Nonhazardous and inert waste: appropriate measures for permitted facilities'. c) The proposed sampling plan includes Southern Water's committed that those undertaking the sampling and analysis will be by accredited to MCERTs or provide evidence of equivalent standards. d) The site layout plan (790101_MSD_SiteLayoutPlan_BUD January 2025) has been updated to include emission and sampling point for the effluent discharge from the HoW activity.

Topic of Question Question relevancy no.			Response	
d) Prov sam from	vide a revised site plan with plan with plan with pling point and emission the head of works active the head of works act	which identifies the efflu n point for the effluent d vity.	ent ischarge	
Tank List for this hund/scenario	Volume	Covered?	On OCU?	Above Ground
Surplus Activated Sludge Tank No 1	979	Yes	Yes	Above Ground
Surplus Activated Sludge Tank No 2	979	Yes	Yes	Above Ground
Thickened Sludge Storage Tank No 1	866	Yes	Yes	Above Ground
Thickened Sludge Storage Tank No 2	866	Yes	Yes	Above Ground
Digester No 1	2750	Yes	Gas system	Above Ground
Digester No 2	2750	Yes	Gas system	Above Ground
Digester No 3	2750	Yes	Gas system	Above Ground
Digester No 4	2750	Yes	Gas system	Above Ground
Digester No 5	2750	Yes	Gas system	Above Ground
Post-Digestion Storage Tank No 1	866	Yes	Gas system	Above Ground
Post-Digestion Storage Tank No 2	866	Yes	Gas system	Above Ground
Sludge Reception Tank	142	Yes	Yes	Above Ground
Sludge Holding Tank 1	156	Yes	Yes	Above Ground
Sludge Holding Tank 2	156	Yes	Yes	Above Ground
Polymer Storage	2.2	Yes	Yes	Above Ground
Screened Sludge storage tank 1	135	Yes	Yes	Above Ground
Screened Sludge storage tank 2	135	Yes	Yes	Above Ground
Tankered trade waste reception tank	1032	Yes	No	Above Ground
Alternative sludge storage tank 1	784	Yes	No	Entirely below ground
Alternative sludge storage tank 2	784	Yes	No	Entirely below ground