



# Southern Water Peacehaven Sludge Treatment Work Permit Application – Response to Environment Agency

<b>Environment Agency reference:</b>	<b>EPR/KB3435RB/V002</b>	<b>Date:</b>	<b>9<sup>th</sup> January 2025</b>
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**Table 1: Response to Environment Agency**

Topic of relevancy	Question no.	Question	Response
Payment details	N/A	<p>Unfortunately the application payment you sent is incorrect. Currently the correct application charge is £22,801. Following confirmation of the waste activities we will confirm the final charge. Please confirm this before the 10 working days to ensure payment can be made within the response time to this letter.</p> <p>Application fee</p> <ul style="list-style-type: none"> <li>£13,958 Substantial variation 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.</li> </ul>	<p>In the original application Southern Water have paid £21,211 on 10/05/2022 (remittance no: 450145611).</p> <p>We believe the correct application fee based on below is £21,215. Our records show that Southern Water have paid for:</p> <p><b>Application fee</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>1.17.6 - £3,961 minor variation of combustion permit (non MCPD/SG).</li> </ul>

Topic of relevancy	Question no.	Question	Response
		<ul style="list-style-type: none"> <li>• Application fee for the for the acceptance of waste to the head of works – 1.16.12 - £3,965 at 50%</li> <li>• Application fee for the dewatering activity – 1.16.12 - £793</li> <li>• Application fee for the temporary storage of cake and other wastes (Grit screenings) – 1.16.12 - £793£1,398.4 – 10% application fee for the liquor treatment plant activity (Note; please confirm treatment type and correct payment).</li> </ul> <p>Additional Assessments (see below for further details)</p> <ul style="list-style-type: none"> <li>• Odour management plan – a fixed charge of £1,246</li> <li>• Habitats assessment – a fixed charge of £779</li> <li>• Emissions management plan (BRA) - £1,241Habitats assessment – a fixed charge of £779</li> </ul>	<ul style="list-style-type: none"> <li>• 1.19.2 - Habitats assessment – a fixed charge of £779</li> <li>• 1.19.5 - Emission Management Plan – a fixed charge of £1,241</li> <li>• 1.19.6 - Odour management plan – a fixed charge of £1,246</li> </ul> <p>SWS has confirmed there is no temporary storage of cake and other wastes (grit and screenings).</p> <p>SWS has confirmed there is no acceptance of digestate for dewatering.</p> <p>SWS has confirmed they accept of wastes to the head of works in the form of cess. Therefore, an additional payment is required for:</p> <ul style="list-style-type: none"> <li>• 1.16.12 - Acceptance of waste to the head of works — £3,965 at 50%.</li> </ul> <p>SWS has paid for 1.17.6 - minor variation of combustion permit (non MCPD/SG) - £3691, which is not required as this is included under 1.16.2.1 - £13,984 application fee for - S5.4 (1) (b) (i) activity.</p> <p>Based on the above the remaining amount of £4 will be paid into acct# 10014411, sort code 607080. The payment will be in the Environment Agency's account by 17<sup>th</sup> January 2025. Payment ref is PSCAPPSOUTH435.</p>
Import of grit and screenings from sewer cleaning and the temporary storage of digested sludge cake	1	<p>You have identified in Table A.2 - 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:</p> <ol style="list-style-type: none"> <li>a) Payment as identified above</li> <li>b) Non-technical summary, and process flow including how you will keep this activity separate from your installations activity (<a href="https://www.gov.uk/guidance/waste-environmental-permits">https://www.gov.uk/guidance/waste-environmental-permits</a>)</li> <li>c) Assessment against Non-hazardous and inert waste: <ul style="list-style-type: none"> <li>appropriate measures for permitted facilities</li> <li><a href="https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities">HTTPs://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities</a></li> </ul> </li> </ol>	<p>Southern Water confirms that Peacehaven STC does not accept the import of grit and screenings into the Site.</p> <p>Therefore, no further response is required for this query.</p>

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		<p>d) Completion of relevant forms – B4 new bespoke waste operation - <a href="https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation">https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation</a></p> <p>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.</p>	
Dewatering activity	2	<p>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. <a href="https://www.gov.uk/government/pub-locations/waste-codes-for-sewage-sludge-and-sludge-containing-other-materials-rps-231/waste-codes-for-sewage-sludge-and-sludge">https://www.gov.uk/government/pub-locations/waste-codes-for-sewage-sludge-and-sludge-containing-other-materials-rps-231/waste-codes-for-sewage-sludge-and-sludge</a>.” 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.</p> <p>a) Payment as identified above</p> <p>b) Non-technical summary, and process flow including how you will keep this activity separate from your installations activity (<a href="https://www.gov.uk/guidance/waste-environmental-permits">https://www.gov.uk/guidance/waste-environmental-permits</a>)”</p> <p>c) Assessment against Non-hazardous and inert waste: appropriate measures for permitted facilities <a href="https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities">https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities</a></p> <p>d) Completion of relevant forms – B4 new bespoke waste operation - <a href="https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation">https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation</a></p> <p>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</p>	<p>Southern Water confirms that Peacehaven STC does not accept digestate for dewatering.</p> <p>Therefore, no further response is required for this query.</p>
Acceptance of waste to the head of the works (HoW)	3	<p>You have identified 16 10 02, 19 09 02 and 19 09 06 for acceptance to the HoW. It is our understanding that this waste 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</p>	<p>Southern Water has confirmed they are accepting wastes to head of works, in the form of domestic tankered waste (cess and chemical toilet waste).</p> <p>a. See response to Q1</p>

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		<p>this activity you will need to provide all information identified within our application process, this includes but is not limited to the below.</p> <ul style="list-style-type: none"> <li>a) Payment as identified above</li> <li>b) Non-technical summary, and process flow including how you will keep this activity separate from your installations activity (<a href="https://www.gov.uk/guidance/waste-environmental-permits">https://www.gov.uk/guidance/waste-environmental-permits</a>)</li> <li>c) Assessment against Non-hazardous and inert waste: appropriate measures for permitted facilities <a href="https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities">https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities</a></li> <li>d) Completion of relevant forms – B4 new bespoke waste operation - <a href="https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation">https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-b4-new-bespoke-waste-operation</a></li> <li>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</li> <li>f) Evidence that you are currently accepting the waste codes identified for acceptance to the HoW. (Note: This can be a single waste transfer note demonstrating that this waste stream has been accepted at site.)</li> <li>g) 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.</li> </ul> <p>As the HoW waste activity would be discharged off site 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:</p> <ul style="list-style-type: none"> <li>h) 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 (<a href="http://www.gov.uk">www.gov.uk</a>) and Surface water</li> </ul>	<ul style="list-style-type: none"> <li>b. A non-technical summary is provided in the MSD (790101_MSD_Main_PEA January 2025).</li> <li>c. An assessment against the Non-hazardous and inert waste: appropriate measures for permitted facilities has been completed (790101_Appropriate Measures_PEA December 2024).</li> <li>d. Form B4 has been completed and provided as 790101_App_PartB4_PEA January 2025.</li> <li>e. All relevant management plans have been updated as applicable,</li> <li>f. Evidence of waste transfer notes for waste received under these codes are presented in 790101_WasteTransferNotes_PEA January 2025.</li> <li>g. 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.</li> <li>h. A proposed sampling plan has been provided as 790101_Sampling proposal_PEA January 2025.</li> <li>i. The proposed sampling plan includes Southern Water's committed to undertake the sampling and analysis in line with the 'Non-hazardous and inert waste: appropriate measures for permitted facilities'.</li> <li>j. 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.</li> <li>k. The site layout plan (790101_MSD_SiteLayoutPlan_PEA January 2025) has been updated to include emission and sampling point for the effluent discharge from the HoW activity.</li> </ul>

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		<p>pollution risk assessment for your environmental permit - GOV.UK (<a href="http://www.gov.uk">www.gov.uk</a>).</p> <p>i) 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'</p> <p>j) 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.</p> <p>k) Provide a revised site plan which identifies the effluent sampling point and emission point for the effluent discharge from the head of works activity.</p>	
Missing document	4	<p>We cannot locate the following documents as part of your submission. Please provide copies of the below documents/files. Please note that your application will not be duly made until these have been checked.</p> <ul style="list-style-type: none"> <li>• 790101-MMD-IED-PEA-SIM-M-101 DoNothing(Tank Failure Only)</li> <li>• 790101-MMD-IED-PEA-SIM-M102 DoNothing(With Rainfall)</li> <li>• 790101-MMD-IED-MIL-SIM-M-103 Option1 (Tank Failure Only)</li> <li>• 790101-MMD-IED-MIL-SIM-M-104 Option1(With Rainfall)</li> <li>• 790101-MMD-IED-MIL-SIM-M-105 Option2 (Tank Failure Only)</li> <li>• 790101-MMD-IED-MIL-SIM-M-106 Option2(With Rainfall)</li> <li>• 90101-MMD-IED-PEA-CA-C-001-P02-IED Peacehaven ADBA Tool (Feb 24)</li> </ul>	The updated ADBA Tool (790101-MMD-IED-PEA-CA-C-001 ADBA Tool P03) supersedes the previously submitted model files.
Emission to air	5	<p>Table 6.2: Part C3, Question 2, Table 2: Point source emissions to air does not reflect your emission point plan.</p> <p>Either update your emission point plan or Table 6.2 to ensure they reflect emission to air points.</p>	The site layout plan (doc ref 790101_MSD_SiteLayoutPlan_PEA January 2025) and Table 6.2 of the MSD (doc ref 790101_MSD_Main_PEA January 2025) have been updated to reflect the air emission points.
Air vent burner – Emission point A04	6	You have identified emission point A04 from the siloxane plant, BAT 14 requires that you contain and collect diffuse emissions to air, and BAT 15 is to use flaring only for safety reasons. It is not clear of this emission will contain biogas, or if you have completed IC2.	<p>Siloxane unit and air vent burner have been removed from service and equipment removed from site since the initial application was made.</p> <p>This has been replaced with a biogas chiller and carbon filters.</p>

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			<p>The chiller reduces the biogas temperature to drop out the moisture before it goes through the activated carbon filters. These filters work in a lead / lag configuration (in series) to clean the biogas of any siloxanes.</p> <p>There are no air emissions on this equipment just biogas condensate. The gas is tested every 6 weeks and once the reading indicates the carbon is spent, the changing of tanks is arranged and the tanks are taken away for removal and change by licenced contractors.</p>
Flare operation	7	<p>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." You have advised in your application that "It is recognised that not all BAT-required parameters are monitored and work is planned to provide the required equipment to meet BAT. A plan providing the measures required to become BAT compliant will be provided within 6 months of permit issue.", and "This is part of a Biogas programme of projects to ensure assets are correctly sized and operate within the requirements."</p> <p>It is accepted that not all BAT requirements are currently met and a plan outlining the measures to be completed to meet BAT will be provided within 6 months of permit issue."</p> <p>This statement does not meet BAT and proposals must be submitted with your application."</p> <ol style="list-style-type: none"> <li>Provide your solution for compliance with BAT 15 and 16.</li> <li>Explain if your current flare is monitored and how many hours on average it is operating, and what it is monitored for.</li> <li>If it is operating over then update your air quality impact assessment to include the flare.</li> </ol>	<p>The available data shows flaring for 834 hours in a year which is ~9.5% of time.</p> <p>The CHP is planned for replacement in AMP8 and will ensure appropriately sized equipment to BAT standards.</p> <p>The existing flare will be retained at this site. The flare has been tested and the emissions are compliant.</p> <p>Work is required to ensure all BAT requirements are met (e.g. access platforms for testing, the required testing is fully adopted into BAU and related processes, ensure all required signals for data collation and reporting are provided, all specific requirements are met for MCERTs and M1 &amp; M2 guidance).</p> <p>The detail of this is under review and any identified scope will be completed in AMP8.</p> <p>The flare use data forms part of wider data collation and reporting (IT) system improvements planned to meet BAT 2c for inventory, BAT 11 energy and has an influence on BATs 15b, 16b and 21c for incident reporting (re. PVRVs and gas system management).</p> <p>The updated BAT is provided as 790101_BAT_PEA January 2025. The ERA (790101_ERA_PEA January 2025) and MSD (790101_MSD_Main_PEA January 2025) have also been updated to reflect any changes.</p>
Odour Control unit	8	<p>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."</p> <p>Explain how you will meet BAT 34 for the wet scrubber.</p>	<p>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.</p> <p>Peacehaven has the following OCU system on site - Stage1: 3 No. acid scrubbers (2 duty/1 standby) followed by stage 2: 3 No. alkaline and</p>

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			<p>hypochlorite scrubbers (2 duty/1 standby) leading to stage 3: 3 No carbon filters.</p> <p>The carbon filters are currently non-operational. Modification and reinstatement to operational use of the carbon filter stages to BAT requirements will be undertaken as part of the IED works on site. The OCUs were installed in 2012 and have a combined total throughput listed as 243,600m<sup>3</sup>/hr.</p>
Application scope	9	You application includes reference and information to the WwTW throughout. You are not applying to permit the WwTW, and this will not form part of your permit boundary.	<p>This has been completed to reflect all activities being applied for and to remove references to the WTW, which do not form part of this application. Some references to the WTW have been left in to provide context.</p> <p>The Main supporting document (790101_MSD_Main_PEA January 2025) has been updated to reflect these changes</p>
Process flow	10	<p>The process flow provided in '790101_MSD_Schematics_PEA' includes the WwTW which does not form part of your applied for process, does not include all assets applied for, includes assets not applied for and does not include the waste activities.</p> <p>Update your process flow to clearly show which assets will form part of your permit boundary, ensure all activities are included and remove or clearly identify which assets in the process flow are part of the WwTW and not part of this permit application.</p>	Updated process flow diagram, has been provided as doc ref 790101_MSD_Schematic_PEA January 2025.
Activity Capacity	11	<p>Table 6.1 of your main supporting document advises that you are applying for an annual capacity of 587,8903 per annum for AD. This volume seems low based on an Anaerobic Digestion capacity of 9,750m<sup>3</sup> and we require further confirmation that this volume is correct.</p> <p>Also your volume must be provided in tones not meters cubed. Provide the following information:</p> <ol style="list-style-type: none"> <li>Total tonnage of indigenous and imported wet tones to be received at the sludge treatment centre per annum.</li> <li>Total tonnage per annum to be accepted at the anaerobic digesters</li> <li>c) Digester hydraulic retention time</li> </ol>	<p>This has been added into the 790101_MSD_Main PEA January 2025.</p> <ol style="list-style-type: none"> <li>Total tonnage of indigenous and imported wet tones to be received at the sludge treatment centre per annum. 799,223 wet tonnes.</li> <li>Total tonnage per annum to be accepted at the anaerobic digesters is 16,629 wet tonnes.</li> <li>Digester hydraulic retention time minimum standard is 14 days – average measured for the site is 17.4days.</li> </ol> <p>The annual throughputs through the Peacehaven STC is presented in 790101_AnnualThroughput_PEA December 2024.</p>

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Waste code accepted	12	<p>You have provided table 'A.1 Waste imported for anaerobic digestion'. This table includes EWC code 16 10 02 in which you have listed waste types that you intend to accept under this code. (some would not meet the WM3 requirements for 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.</p> <p>a) Provide the source of 16 10 02 that you intend to accept for anaerobic digestion.</p> <p>b) Explain why accepting 16 10 02 would not be co-digestion.</p> <p>c) If you are applying for co-digestion, update and re-submit your application to reflect co-digestion.</p> <p>d) If you do not require 16 10 02 for acceptance to the anaerobic digestion process confirm that this code is to be removed.</p>	<p>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.</p> <p>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.</p> <p>The Main Supporting Document and Odour Management Plan have been amended and provided separately (doc ref 790101_MSD_Main_PEA January 2025 and 790101_ERA_OdourMP_PEA January 2025 respectively). The latest version removes the applicable 16 10 02, and caveats that controlled waste will not feature on the permit.</p>
Waste water emissions during storm overflow conditions at the WwTW	13	<p>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).</p> <p>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.</p> <p>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.</p> <p>b) Provide a description of the buffer storage proposals to control or hold emissions to the event of storm overflow conditions at the WwTW</p> <p>c) Should any contingency arrangements use storage tanks to act as a buffer, provide evidence that demonstrates the</p>	<p>Peacehaven WTW does not have storm separation or storage onsite.</p> <p>Storm separation is controlled at terminal pumping stations, flow to site from Marine Drive Brighton Pumping Station (WPS) and Portobello WPS is restricted to meet the Peacehaven rated capacity.</p> <p>The STC return liquors are pumped to the start of the WtW process (inlet) and are subjected to the full 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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>Proposals for additional storage capacity with secondary containment within the site boundary for wastewater and/or other digestate during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions.</li> </ul>



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		waste waters or digestates can be held in this storage during the period of storm overflows.	<ul style="list-style-type: none"> <li>• Procedures to cease discharges during these conditions.</li> <li>• 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.</li> <li>• 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.</li> <li>• A program of works with timescales for the implementation and construction of the buffer storage.</li> <li>• A preventative maintenance and inspection regime.</li> </ul>
Site Condition report (SCR)	14	<p>On review of your site condition report this includes activities in the wider WwTW which do not form part of your permit boundary or the activities you have applied for. We can also not located Appendix B. Landmark Envirocheck Report.</p> <p>a) Update your SCR to reflect the permit area and application you are applying for, removing activities that will not be included within your permit, or clearly identifying activities that that are not part of the permit being applied for.</p> <p>b) b) Provide 'Appendix B. Landmark Envirocheck Report', and all supporting information identified in section 'supporting information'.</p>	<p>a. The SCR (doc ref 790101_MSD_SCR_PEA December 2024) has been updated to remove reference to activities in the wider WtW, which do not form part of the permit boundary, and remove any identified exemptions.</p> <p>b. The Landmark Envirocheck Report ad any other supporting document has been provided (doc ref 790101_MSD_SCR_PEA APP B Envirocheck).</p>
Waste acceptance and pre-acceptance	15	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_PEA December 2024.
Emissions to air from odour control unit	16	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 HCl), or evidence that TVOC and HCl 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	<p>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.</p> <p>If TVOC and HCl are identified as relevant in the waste gas streams Southern Water will monitor these emissions in line with BAT requirements.</p> <p>The Odour Management Plan has been updated. Table 8 of the OMP to reflect the above commitments, document reference 790101_ERA_OdourMP_PEA January 2025.</p>

Topic of relevancy	Question no.	Question	Response
		<p>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'.</p> <p>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.</p> <p>a) Confirm that you will characterise emissions from the odour control units in line with BAT 3 to demonstrate if TVOC and HCl are present in the waste gas stream.</p> <p>b) Confirm that if TVOC and HCl are identified as relevant in the waste gas streams that you will monitor these emission in line with BAT requirements.</p>	
Indirect emission to water	17	<p>You have identified indirect emissions to water from:</p> <ul style="list-style-type: none"> <li>• Condensate from the gas pipelines and gas storage bag</li> <li>• Boiler blow down to minimize damage from high mineral content water</li> <li>• Drain down of plant</li> <li>• Uncontaminated roof water from buildings.</li> <li>• Run off from impervious surfaces</li> <li>• Domestic facilities (note this would not be permitted as part of the installation)</li> </ul> <p>Washwater</p> <p>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."</p> <p>a) Update your emission point plan to ensure all that all indirect emissions to water are included, and clearly explain which emission point includes which waste water stream.</p> <p>b) Include your emission/sampling point for the HoW waste activity and strategic storage facility ensuring that these are representative of the discharge.</p>	<p>a. The Site Layout Plan (document reference 790101_MSD_SiteLayoutPlan_PEA January 2025) has been updated to indicate the emission points and monitoring locations listed under bullets points b, e, f, g &amp; h.</p> <p>b. Document reference 790101_Sampling proposal_PEA January 2025 is provided to address the following, in relation to the indirect emissions to water and covering point 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.</p> <p>Document 790101_Sampling proposal_PEA 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.</p> <p>c. Table 6.3 of the main supporting document (790101_MSD_Main_PEA January 2025) has been updated to identify all relevant indirect emissions to water, ensuring that it reflects the site plans provided</p>

Topic of relevancy	Question no.	Question	Response
		<p>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."</p> <p>d) Provide a written statement with a commitment to undertake the sampling and analysis in line with BAT 3.</p> <p>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.</p> <p>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.</p> <p>g) You have identified "Uncontaminated roof water from new buildings". To discharge uncontaminated water, such as 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.</p> <p>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.</p>	

Tank List	Above ground Volume (m³)	Total Tank Volume (m3)	Tank Covered?	Notes	Connected to OCU?
Digester No.1	2578	3250	Yes	Calculated above ground volume, ground level taken as lowest point around diameter for tank height.	No, on Gas system
Digester No.2	2515	3250	Yes		No, on Gas system
Digester No.3	2459	3250	Yes		No, on Gas system
Post Digestion - Storage Tank No.1	677	677	Yes	Tank is above ground	No, on Gas system
Post Digestion - Storage Tank No.2	677	677	Yes	Tank is above ground	No, on Gas system
Digester Feed Tank No.1	383	383	Yes	Tank is above ground	Yes

Digester Feed Tank No.2	383	383	Yes	Tank is above ground	Yes
Co-Settled Sludge Tank No.1	2060	2060	Yes	Tank is above ground	Yes
Co-Settled Sludge Tank No.2	2060	2060	Yes	Tank is above ground	Yes
Lime tank	30	30	Yes	Tank is above ground	Yes
Polymer Mixing Tank	25	25	Yes	Tank is above ground	Yes
Poly Storage Tank	15	15	Yes	Tank is above ground	Yes