



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

Environment Agency reference:	EPR/KP3130KX/V003	Date:	4 th December 2024
Prepared by:	Claire Cowdrey	Checked by:	Anita Manns
Approved by:	Anita Manns	Document reference:	790101_NDM Response_FORD December 2024

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

Mott MacDonald Limited (Registered in England and Wales no. 1243967. Registered office: Mott MacDonald House, 8-10 Sydenham Road, Croydon CR0 2EE, United Kingdom) accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Table 1: Response to Environment Agency

Topic of relevancy	Question no.	Question	Response
Dewatering activity	1	Please provide a more detailed description of this proposed activity from pre acceptance onwards, clearly explaining how the activity is kept separate from the installation activity. Please provide a process flow for this activity.	<p>The main supporting document (790101_MSD_Main_FOR December 2024) has been updated to demonstrate how the dewatering activity will be managed.</p> <p>Southern Water are currently establishing procedures that will be incorporated into a Sampling Plan for each site. They plan to share the template with the Environment Agency. The document will include characterisation the results of which will inform pre-acceptance and acceptance procedures for receipt, including related risk management systems, from source sites. Potential solutions currently being investigated include a separate discharge point direct into the centrifuge feed pump from the tanker and a shut off value to prevent indigenous feed from the PDST during this time.</p>

MOTT MACDONALD Indirect emissions to water	Topic of relevant Question no.	Question	Response
	2	Your updated emission plan (790101_MSD_SiteLayoutPlan_FOR September 2024) gives emission points (and corresponding monitoring points) for the following indirect emissions; S1 – thickener liquors returns, S2 – dewatering liquors, S3 – surface drainage (bund water), S4 – gas condensate, boiler blowdown and drain-down of plant, and S5 – gas condensate. However, you have not updated Table 6.3 in your main supporting document accordingly. Please update the table and resubmit the MSD.	Table 6.3 in the main supporting document 790101_MSD_Main_FOR December 2024 has been updated.
Confirmed activities to be removed from the application	3	<p>a. In your not duly made response (ref 790101_NDM_Response_FOR September 2024) you state that SWS does not require temporary storage of cake or other wastes. Therefore, please note this activity will not be included in the permitted activities. A refund for this element of the application fee (£3,965) will be arranged.</p> <p>b. In your not duly made response (ref 790101_NDM_Response_FOR September 2024) you state there is no waste acceptance to the Head of Works. Therefore, please note this activity will not be included in the permitted activities. A refund for this element of the application fee (£793) will be arranged.</p>	These have been confirmed by Southern Water Services. They do not require temporary storage of cake and there is no acceptance to the Head of Works.
Additional information requested on flare usage	4	<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 BAT assessment as part of your application that for BAT 15: "this is part of a biogas programme of projects to ensure assets are correctly sized and operated within the requirements. 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>BAT 16 states that "in order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given (which are correct design of flaring devices optimisation ... to enable smokeless and reliable operation and to ensure the efficient combustion of excess gases; and monitoring and recording as part of flare management, including the continuous monitoring of the quantity of gas sent to flaring...)" You have advised in your BAT assessment as part of your application that for BAT 16:</p>	<p>Southern Water confirm that the Ford flare and CHP is not compliant with BAT 15 and 16. The updated BAT is provided as 790101_BAT_FOR December 2024.</p> <p>Southern Water confirms that they plan to replace the existing CHP and flare at Ford as it does not meet the requirements for biogas combustion. In addition, work will be undertaken to ensure full BAT compliance including for access, ports and measuring/monitoring devices.</p> <p>Gas modelling shows the site is expected to flare for 11.4% of the time for the current equipment. The planned replacement of the CHP engine will ensure the flare is operated less frequently once the work is completed. The meter at Ford is of an older (mechanical) type and is not able to directly provide flare run hours data.</p> <p>This meter will be replaced as part of flare replacement and ensure all required signals for data collation and reporting are provided, along with additional considerations regarding monitoring and access for testing.</p> <p>Air Quality Risk Assessment (AQRA) will be updated for the new CHP and flare once the appropriate design has been completed.</p>



Topic of
relevant
M

Question
no.

Response

“work with respect to this BAT form part of an ongoing programme of biogas management projects to address known shortcomings. The scope includes flare replacement at Ford.....
 Additional considerations with respect to flare use relate to the optimisation of digestion and CHP sizing, these will be addressed in relevant plans.
 Ford stack operation is not monitored at Ford. However, the Scope includes plans to replace the older type of meter currently at the Ford site. 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”
 These statements do not meet BAT, and proposals must be submitted with your application. Provide your solution for compliance with BAT 15 and BAT 16.

Further information is being collated in line with discussions with the SSD LIA (KS) on 3/12/24 and will be provided in due course (regarding asset replacement plans and timescales).