WONDERFUL ON TAP

SEVERN TRENT

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Response to Request for Further Information – Application EPR/BP3631SW/V013 Minworth STF

Dear Tommy,
This correspondence is in response to the Environment Agency request for more supporting information received 20/03/25, regarding the variation application to our sludge treatment installation. This particular submission is in relation to Severn Trent's Sludge Treatment Facility at Minworth Sewage Treatment Works, B76 9DP, referenced as permit number EPR/BP3631SW/V013. This is to be read in conjunction with Information previously submitted on 27/09/24.

1. Secondary containment implementation plan

You must provide a written 'secondary containment implementation plan' containing the finalised detailed designs and an implementation schedule for a secondary containment system for all liquids that could cause pollution from tanks, sumps and containers.
The finalised design(s) and specifications shall be produced by appropriate competent individuals (qualified civil or structural engineer), in accordance with BAT 19 of the Waste Treatment BREF and the risk assessment methodology detailed within CIRIA C736 (2014) guidance, or an equivalent standard that will provide an equivalent level of environmental protection. The plan shall include but not be limited to the following components:

- **Finalised designs and specifications of the proposed secondary containment proposal completed by appropriate competent individuals.**
- **An assessment of the suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure.**
- **A program of works with timescales for the commissioning of the secondary containment systems to comply with CIRIA C736 (2014) guidance, or equivalent standard.**
- **An updated site and infrastructure plan.**
- **A preventative maintenance and inspection regime.**
- **Spill modelling to demonstrate that the proposals are effective.**

Initial Risks and Optioneering Reports (dated July 2024) were issued with the original application. Additionally, our response on the 31*st* March 25 showed dates as follows for Minworth secondary containment plan, along with further project break-down details. We are dealing with these elements via a dedicated project team for "Emissions to Water", and are prioritising the implementation of secondary containment at our newly permitted sites. We are working through getting these details approved by local EA Officers. Although optioneering design has already been completed for both sites, the proposed dates for finalised detailed design are beyond the 1st August for sites, due to resourcing other sites first. We would therefore not have the finalised plans to issue by 1st August.

	Detailed Design: Secondary Containment design			Secondary Containment build		No regrets	
	Permit issued	IC date	Actual date	EA Approval	Completion	Start date	Completion date
Minworth	-	-	05/01/2026	-	08/02/2027	06/10/2025	27/10/2025

2. Enclosure and abatement plan for pre-digestion tanks

For sites that have open assets/tanks and processes prior to the treatment of sludge via anaerobic digestion, you must provide a written 'enclosure and abatement plan'. This must contain the final designs and an implementation schedule for the installation of enclosures/covers and associated emission abatement systems in line with BAT 14, BAT 34 and BAT 53 for storage and treatment tanks pre-anaerobic digestion. The plan shall include evidence that the tank enclosures/covers will be designed and installed in accordance with guidance, Biological waste treatment: appropriate measures for permitted facilities, and provide evidence to demonstrate why the emission abatement system will be effective and meet the requirements of BAT 34 and 53. BAT 53 is applicable where the containment and abatement of emissions treats air from the treatment of water based liquid wastes, for example centrifugation.

We are dealing with these elements under a dedicated project team for "Emissions to air". The proposed dates for finalised detailed design are beyond the 1st August for sites, partially due to outstanding queries on what abatement options are best to use on pre- and post- digestion tanks, which is an industry wide issue that we are all collectively trying to resolve. We would therefore not have the finalised plans to issue by 1st August.

	Emissions to Air design (pre & post digestion)		
	Permit issued	**Permit date**	**Actual date**
Minworth	-	-	25/12/2025

3. Primary anaerobic digestion vessel cover plan for floating roof/unsealed digesters

Tanks that have open digestion processes that emit uncontrolled fugitive emissions must enclose these tanks and channel gas to appropriate storage or gas utilisation plant. You must provide a written 'Primary anaerobic digestion vessel cover plan' containing the final designs and an implementation schedule for the installation of covers for vessels undertaking anaerobic digestion that are not currently fully sealed such as floating roof digesters. The plan shall also contain a detailed description of the proposed gas utilisation plant, gas storage infrastructure for the biogas produced during anaerobic digestion, pressure relief valves and gas pipework. The plan shall include but not be limited to the following components:

- **Evidence that the vessel covers, gas utilisation plant and ancillary equipment have been designed by appropriately qualified engineers.**
- **Evidence that the vessel covers, and gas utilisation plant will be designed and installed in accordance with guidance, Biological waste treatment: appropriate measures for permitted facilities.**
- **An updated Hazard and Operability Study (HAZOP) and DSEAR risk assessment.**
- **An assessment of gas storage capacity and gas utilisation capacity including proposals for additional gas utilisation plant.**
- **A program of works with timescales for the commissioning of the vessel covers, gas utilisation infrastructure and ancillary equipment.**

We are dealing with these elements under a dedicated project team for "Emissions to air". The proposed dates for finalised detailed design are beyond the 1st August for sites, partially due to outstanding queries on what abatement options are best to use on pre- and post- digestion tanks, which is an industry wide issue that we are all collectively trying to resolve. We would therefore not have the finalised plans to issue by 1st August.

	Digester floating roofs	
	Start date	**Completion date**
Minworth	2022	2030 (total 16 digesters)

4. Post anaerobic digestion vessel cover plan

For Sites that have open assets/tanks and processes post-anaerobic digestion emit uncontrolled fugitive

emissions such as biogas and ammonia. You must provide a written 'post anaerobic digestion vessel cover' plan containing the final designs and an implementation schedule for the installation of covers for all vessels storing and/or treating digestate in tanks that are not currently enclosed. The plan shall also contain a detailed description of the proposed gas utilisation/abatement plant, gas storage infrastructure for the biogas produced during anaerobic digestion, pressure relief valves and gas pipework. The plan shall include but not be limited to the following components:

- **Evidence that the pollutants of the waste gas (including methane) produced in the tanks will be controlled and/or abated either by the proposed gas utilisation plant or proposed abatement system.**
- **Evidence that the vessel covers, gas utilisation/ abatement plant and ancillary equipment have been designed by appropriately qualified engineers.**
- **Evidence that the vessel covers, and gas utilisation/abatement plant will be designed and installed in accordance with guidance, Biological waste treatment: appropriate measures for permitted facilities.**
- **An updated Hazard and Operability Study (HAZOP) and DSEAR risk assessment.**
- **An assessment of gas storage capacity and gas utilisation/abatement capacity including proposals for additional gas utilisation/ abatement plant.**
- **A program of works with timescales for the commissioning of the vessel cover(s), gas utilisation/ abatement infrastructure and ancillary equipment.**

We are dealing with these elements under a dedicated project team for "Emissions to air". The proposed dates for finalised detailed design are beyond the 1st August for sites, partially due to outstanding queries on what abatement options are best to use on pre- and post- digestion tanks, which is an industry wide issue that we are all collectively trying to resolve. We would therefore not have the finalised plans to issue by 1st August.

	Emissions to Air design (pre & post digestion)		
	Permit issued	**Permit date**	**Actual date**
Minworth	-	-	25/12/2025

5. Waste water and digestate buffer storage plan to prevent uncontrolled releases during storm conditions.

You must confirm if your sites indirect emissions to water can bypass the waste water treatment works (WwTW) during storm conditions. If indirect emissions to water can bypass the WwTW you must provide a written "waste water and digestate buffer storage plan" containing the results of a review of the current storage of waste water and digestate produced from site operations. The review shall propose and describe site contingency arrangements to provide appropriate storage capacity or other appropriate measures (such as rerouting site drainage) to prevent or minimise emissions of waste water or digestate being discharged off site during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions.
The plan shall include but not be limited to:

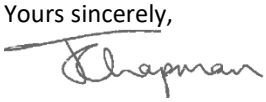
- **Proposals for additional storage capacity with secondary containment within the site boundary for wastewater and/or other digestate during any occasions when the receiving wastewater treatment works is in storm overflow operating conditions.**
- **Proposals for alternative contingency methods such as changes to site drainage. Amendments to site drainage must be accompanied by detailed design work.**
- **Procedures to cease discharges during these conditions.**
- **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.**

We have assessed all site returns to the inlet and can confirm none of them return to the works prior to the storm offtake, and therefore there is no potential route for them to bypass the wastewater treatment works.

Returns	**Treatment**
LTP returns	Returned via ASP distribution chamber, post Storm offtake, for wastewater treatment – no buffer needed
SAS belts	Returned via returns well, post Storm offtake, for wastewater treatment – no buffer needed
MAFF Wash Water (Final Dewatering Filtrate)	Returned via ASP distribution chamber, post Storm offtake, for wastewater treatment – no buffer needed
Digested Centrate	Returned via wet well, post Storm offtake, for wastewater treatment – no buffer needed
Pre THP Centrifuge Returns	Returned via wet well, post Storm offtake, for wastewater treatment – no buffer needed

I hope you find that the attached is sufficient for your review, but any questions regarding this content can be directed to me by email or phone using the details below.

Yours sincerely,



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