APP/EPR/659

APPEAL BY THAMES WATER UTILITIES LTD

ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016

SITE AT: READING SLUDGE TREATMENT WORKS, ISLAND ROAD, READING RG2 0RP

ENVIRONMENT AGENCY RESPONSE TO APPELLANT'S STATEMENT

DATE: 02 MAY 2024

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Section 1: Introduction

1. This is the Environment Agency's ("the Agency") response to the Statement of Case submitted by Thames Water Utilities Limited, company number: 02366661 ("the Appellant") dated 11 April 2024 ("the Appellant's Statement"), provided in support of the Appellant's appeal pursuant to Regulation 31 of the Environmental Permitting (England and Wales) Regulations 2016 ("EPR 2016") and the Appellant's further evidence. Definitions and terms used in this response are the same as those used in the Agency's Statement of Case as submitted on 14 March 2023 ("the Agency's Statement").

2. This statement should be read in conjunction with the Agency's Statement and the annexes contained therein.

Section 2: Response to Appellant's Statement and further evidence

3. The Appellant's grounds of appeal, as set out in the Appellant's Statement, have been materially addressed in the Agency's Statement and we do not wish to unnecessarily duplicate or repeat points that have already been made. On that basis, any silence or failure on our part to address specific points raised in the Appellant's Statement should not be taken to be our agreement with, or acceptance of, them, however, the Agency wishes to clarify various points raised in the Appellant's Statement (indicative references to the paragraphs in the Appellant's Statement are provided for ease of reference):

4. **Paragraph 4) –** The Appellant has introduced new reasons in relation to the grounds of appeal. This relates to the amendment of Improvement Condition (IC) 9 to *"prepare an updated and site-specific assessment of the required secondary containment at the reading STC ["Sludge Treatment Centre"] to achieve BAT".* The Agency's Statement was based around the interpretation of the technical requirements. The Appellant has not previously requested the amendment of IC9. The Appellant sought no further clarification on the interpretation of this IC at the operator review stage of the permit determination, which is where any concerns can be raised about the conditions. It was the Agency's understanding that the requirements of this IC were fully understood by the Appellant. The Agency are able to impose improvement conditions where it considers that there is sufficient information in an application to determine it, but we require an applicant to examine some issues further or take steps which it cannot reasonably be expected to take before a permit is issued. It is inappropriate to set improvement conditions to obtain information such as a "site-specific assessment of the required secondary containment" that should be assessed during the application determination stage, or to agree alternative measures. This is our standard approach to setting improvement conditions.

   It was our understanding that the Appellant had already provided a 'site specific assessment' in the form of the 'Reading STC – Containment Options Report, dated May 2023[1]' which enabled the Agency to implement IC9. The purpose of IC9 was to secure 'finalised designs' and an 'implementation schedule for the identified secondary containment systems proposed in the submitted, 'Reading STC – Containment Options Report''. This was required to be provided within a reasonable timeframe to the Agency for both submission of plans, and implementation of the finally approved solution. No plans or schedule have been produced by the Appellant within the IC9 deadlines, and the Agency does not consider it reasonable or appropriate to extend those deadlines, or amend the IC to allow for new assessments that should have been provided in

[1] Appendix 1 Reading STC - Containment Options Report, dated May 2023

determination to be provided subsequent to the grant of the permit, as now proposed by the Appellant.

5. **Paragraph 4) -** The Appellant has stated that the Agency has refused to consider the Appellant's proposed site-specific assessment of Best Available Techniques ("BAT") at the Reading STC. We do not accept this to be true, as meetings and communications have taken place between the Agency and the Appellant since the permit determination on the 27 July 2023, this includes:

    - Appendix 2 - E-mail from Steve Spencer explaining TWUL interpretation of CIRIA and credible scenarios14th December 2023[2].
    - Appendix 3 - Agency's holding response 15th December 2023[3]
    - Appendix 4 – E-mail response and attachments to TWUL dated 17 January 2024 which explains the Agency's interpretation of credible scenarios and the 110/25% rule.[4],[5],[6]
    - Appendix 5 - E-mail Acknowledgement from TWUL dated 18 January 2024[7]
    - Appendix 6 - TWUL email providing further explanation of their interpretation maintaining that they are free to choose whichever of the 110% or 25% they consider appropriate[8].
    - Appendix 7 - The Agency's e-mail response dated 15th March 2024[9]
    - Appendix 8 - TWUL e-mail response dated 21 March 2024 referring us to Appendix A of the Reading submission[10]
    - Appendix 9 – The Agency's response dated 25 March 2024 which states in clear terms why we didn't accept the 17 January submission.[11]
    - Appendix 10 - TWUL e-mail dated 12 April 2024 from Nicola Telcik[12]
    - Appendix 11 - Reading STC Compliance Assessment report response dated 22 March 2024[13]

    The Agency has rejected the Appellant's proposal for use of a 'Credible Scenario' approach to reduce the proposed containment volume, as explained in Appendix 4 – E-mail attachments – credible Scenarios Thames Water. This followed receipt of verbal guidance from the authors of CIRIA C736 and was principally due to the limited and incomplete information provided. As such we considered that the Appellant failed to satisfy us that their proposal provides an at least equivalent level of environmental protection to BAT. To be clear, the Agency did not refuse to consider site-specific assessments of BAT. The Appellant had an opportunity to provide any alternative techniques that would provide at least the same level of environmental protection during the determination process, which they chose not to provide. Site specific assessments which divert from BAT must be supported by detailed technical justifications and evidence. It is

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[2] Appendix 2 - E-mail from Steve Spencer explaining TWUL interpretation of CIRIA and credible scenarios14th December 2023

[3] Appendix 3 - Agency's holding response 15th December 2023

[4] Appendix 4 – E-mail response to TWUL dated 17 January 2024 which explains the Agency's interpretation of credible scenarios and the 110/25% rule.

[5] Appendix 4 - E-mail attachments - Credible Scenarios Thames Water

[6] Appendix 4 - E-mail attachments - Comments on Assumptions in Slide 3

[7] Appendix 5 - E-mail Acknowledgement from TWUL dated 18 January 2024

[8] Appendix 6 - TWUL email providing further explanation of their interpretation maintaining that they are free to choose whichever of the 110% or 25% they consider appropriate.

[9] Appendix 7 - The Agency's e-mail response dated 15th March 2024

[10] Appendix 8 - TWUL e-mail response dated 21 March 2024 referring us to Appendix A of the Reading submission.

[11] Appendix 9 – The Agency's response dated 25 March 2024 which states in clear terms why we didn't accept the 17 January submission.

[12] Appendix 10 - TWUL e-mail dated 12 April 2024 from Nicola Telcik

[13] Appendix 11 - Reading STC Compliance Assessment report response dated 22 March 2024

not suitable or appropriate to use improvement conditions as an opportunity for an applicant to work out how they will demonstrate BAT after an application had been consulted on and determined. We did consider the Appellant's proposed site specific assessment of BAT at the Reading STC and found it to be lacking in sufficient detail, which is the reason why the requirements of IC9 were imposed.

6. **Paragraph 4)** – The Appellant states that the timeframe for the requirements of the improvement condition are:
"unreasonable and fail to take into account, either properly or at all, of:

- *The need for a site-specific risk assessment for Reading STC;*
- *Practical steps necessary to design and construct secondary containment;*
- *The level of uncertainty surrounding BAT for secondary containment and its requirements;*
- *Funding;*
- *The wider business implications of a single blanket deadline for all infrastructure improvements to relevant STCs.*
- *Wider regulatory obligations imposed on TWUL".*

As outlined in the Agency's Statement (Ref APP/EPR/659), paragraph 44, we set IC9 after receiving from the Appellant a limited level of information which included a written commitment to implement BAT and a high-level proposal which would meet the requirements of BAT, including secondary containment proposals that had a capacity larger than both of the following:

- 110% of the largest tank the bund is protecting.
- 25% of the combined volume of all the tanks the bund is protecting.

Our determination decision to issue a permit is based on the proposals made by the Appellant in 'Reading STC – Containment Options Report, dated May 2023' during the permit determination. We set timeframes for the Appellant to develop more specifically this high-level design and then subsequent time to implement the proposals, as approved by the Agency. The timeframe that was set was based on pre-existing commitments by the Appellant to implement their secondary containment designs, not to accommodate new discussions on unspecified future site-specific risk assessments. This did not form any part of the determination process and is therefore not relevant to setting the IC timeframes, which were based on the application that had been submitted to the Agency to determine. The following paragraphs take each aspect raised by the Appellant in turn in relation to timescales.

7. **Paragraph 4)** – "*Practical steps necessary to design and construct secondary containment"*. The total timeframe for producing detailed, evidence-based designs for the high-level secondary containment proposal and implementation is 17 months. No detailed proposals at all have, in fact, been submitted to the Agency. It is unknown whether the Appellant has begun this process. Therefore, any remaining implementation period will of course be shorter if the Appellant has not already taken steps to produce technical designs for their secondary containment proposal. Furthermore, during the operator review phase, no objections we're raised by the Appellant on the total timeframe set for this specific and unambiguous improvement condition.

8. **Paragraph 4)** – "*The level of uncertainty surrounding BAT for secondary containment and its requirements"*. It is unclear what this statement is in reference to regarding the improvement condition or the timeframe. The Agency issued a permit based on high level secondary containment proposals made by the Appellant in line with BAT. It is important to restate our

reasons for accepting a permit application where detailed designs were not submitted as part of the application. The permit decision document[14], (issued with the environmental permit on 25 July 2023, see pages 9 - 10) makes it clear that the Agency has provided concession to the Appellant which recognises that the operations are already existing and have issued a permit without requiring the Appellant to provide detailed technical proposals for secondary containment during the permit determination. The Appellant therefore received time and space to implement their proposals that would not have been allowed for applications for new installation permits.

9. **Paragraph 4)** – *"Funding".* The cost associated with BAT requirements is addressed later in this document (Paragraphs 28,38,42 and 43).

10. **Paragraph 4)** – *"The wider business implications of a single blanket deadline for all infrastructure improvements to relevant STCs".* The deadline provides for a 17-month timeframe for improvements to meet BAT for secondary containment. It is important to state once more that it is over five and a half years since the Appellant was informed of the requirements to meet BAT for their STCs. As stated above, we have made concessions to the Appellant by accepting proposals which were not supported by detailed technical information and provided a timeframe for the Appellant to produce that evidence and take steps to implement the approved proposals. It should also be noted that the deadline of 31 December 2024 has been extended to 31 March 2025. The Agency also wrote to the Appellant on 18 March 2024[15] stating that operators should demonstrate they have made best endeavours to comply at the earliest possible date. It states:

    The permitting team will continue to process applications throughout the coming year. If you do not currently operate to the BAT standard or equivalent, you should be taking immediate steps to comply do so regardless of whether you have received your permit.

    Despite the time that has elapsed we understand that some companies believe that they are unable to implement all the changes and complete the works required to comply with BAT by 31 March 2025. Should you find yourself in this position there is significant risk of enforcement action. In keeping with standard practice we have advised that you should look to document and provide evidence that you have taken all available measures to achieve compliance by the earliest possible date. We have described this as demonstrating 'best endeavours'.

    I am sure you will understand that as the regulator we cannot fetter our discretion, putting forward mitigation does not ensure that you will avoid enforcement, but it can be taken into account when deciding the appropriate level of regulatory response. Demonstrating best endeavours requires you to strive to be compliant before the March 2025 deadline and to take all available measures to do so. You do not need to try to demonstrate you have used best endeavours before this deadline.

    We have set out in paragraph 27 more information about 'best endeavours'.

[14] EPR/MP3338LU/V004 Permit and decision document

[15] Appendix 12 - Letter to TWUL CEO Chris Weston dated 18th March 2024

11. **Paragraph 4)** – *'The wider regulatory obligations imposed on TWUL'.* The permit determination is based upon the requirements of the EPR2016. If there are other regulatory obligations on the Appellant not specific to the EPR2016, it is not the Agency's responsibility or obligation to consider these as part of the permit determination process.

12. **Paragraph 5, 6, 26 i), and 60)** - The Appellant advises that *"The Environment Agency has fallen into error in considering that guidance document CIRIA C736 "requires", for the purposes of achieving BAT, a minimum industry standard of the greater of either: i) 110 per cent of the capacity of the largest tank within the bund; or ii) 25 per cent of the total capacity of all the tanks within the bund, except where tanks are hydraulically linked in which case they should be treated as if they were a single tank."* We disagree with this statement for the reasons outlined within the Agency's Statement. To clarify, the Agency has always been clear in its approach that the 110% or 25% approach should be applicable unless an alternative approach that provides at least the same level of environmental protection is proposed, with clear technical evidence to demonstrate why and how this approach would provide at least the same level of environmental protection. This technical evidence justifying an alternative approach was not and has not been provided by the Appellant to date.

13. **Paragraph 8)** - The Appellant advises that *"the use of a site-specific risk assessment for the purposes of determining the appropriate level of secondary containment is not an 'alternative approach' to BAT, but the proper application of CIRIA C736 for the purposes of achieving BAT".* The Appellant's proposals that have been provided subsequent to determination and the issue of the permit are to reduce containment levels below the 110% or 25% Agency and CIRIA 736 standard requirements, in effect reducing the level of environmental protection without any supporting technical evidence demonstrating that environmental protection levels could be maintained while reducing the standard containment levels. We maintain our opinion that the correct reading of 'credible scenarios' in CIRIA C736 must be that there are some instances, such as where there is a fire or explosion risk, where the assumption that multiple tanks would not be damaged or lost at the same time cannot properly or credibly be maintained. In such instances there may be a requirement for more than the standard 25% total containment volume to be provided. So, the Appellant's claim that their site-specific risk assessment is a proper application of CIRIA C736 is, in our view, incorrect. As such the Agency would see their proposal as an alternative technique that would need to demonstrate on a site-specific basis why it would provide at least the same level of environmental protection. The Best Available Techniques (BAT) Reference Document for Waste Treatment[16] (BREF) further explains this as *"The bund is designed so that in the event of an accident the liquid can be contained until security measures are in place. The bund has sufficient capacity to cope with any spillage and firefighting water (it is normally sized to accommodate the loss of containment of the largest tank within the secondary containment) and is used to ensure containment of wastes and raw materials."* This is highlighted in the Agency's Statement and the document 'A Review of Environmental Incidents at Anaerobic Digestion (AD) Plants and Associated Sites between 2010 and 2018[17]'. It identifies with supporting evidence that AD sites have a history of incidents including partial or complete collapse of primary containment and associated loss of digestate, water pollution from storage of feedstock or digestate, significant odour, loss of biogas, fires and explosion. The use of the 25% containment figure

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[16] The Best Available Techniques (BAT) Reference Document for Waste Treatment

[17] A Review of Environmental Incidents at Anaerobic Digestion (AD) Plants and Associated Sites between 2010 and 2018

is already quite a significant compromise on being able to demonstrate that all inventory could be held by secondary and tertiary containment measures.

14. **Paragraph 10 and 87)** - The Appellant has stated that *"Relevant guidance on 'Appropriate Measures' was published in September 2022. Practically, it is only at the stage of a specific permit application (with the ensuing site-specific dialogue with Environment Agency) that the precise scope of required improvements to existing infrastructure can be properly assessed. Consequently, it is a gross over-simplification to state that water companies would have been fully aware of both the requirements and cost of IED and BAT at the point at which the Environment Agency communicated its updated regulatory position to the industry in 2019."* While we agree that the Appellant could not be immediately aware of costs and would need to design appropriate and likely bespoke containment schemes for each site to prevent potential pollution, guidance on the requirements for secondary containment are widely publicly available and include the below documents. The Agency also advised the Appellant of the requirements of containment assessment prior to September 2022 in the form of training sessions and workshops as identified in paragraph 51 of the Agency's Statement. We do not believe it is correct for the Appellant to state that required improvements could not be assessed until the stage of specific permit application.
    - *Reference document on Best Available Techniques on Emissions from Storage* (2006) efs_bref_0706_0.pdf (europa.eu)[18]. BAT conclusions for industries which store polluting liquids.
    - *Storing and handling drums and intermediate bulk containers, PPG26* (2011)[19]. Guidelines reflecting good practice and relevant legislation for storing drums and intermediate bulk containers. Now withdrawn guidance which has been replaced with guidance located on www.gov.uk.
    - *Control and monitor emissions for your environmental permit* (first published 2016)[20]. Generic guidance for how operators of environmental permits must control and monitor emissions from activities that cause pollution.

15. **Paragraph 21)** - The Appellant has stated that *"There have been extensive discussions between TWUL, the water industry generally and the Environment Agency on the requirements of BAT for the purposes of secondary containment. These discussions have failed to reach an agreed position between all parties."* We would disagree with this statement for the reasons outlined within the Agency's Statement. In any event, it is the Agency that is the regulator and, while it seeks to engage positively with all stakeholders, it could not regulate effectively or appropriately if it was required to 'reach an agreed position' with all of those that it regulates. At no point during determination did the Appellant seek further clarification on the implementation of secondary containment proposals and only raised questions about the use of 'credible scenarios' in December 2023, nearly 5 months after the permit had been issued.

16. **Paragraph 26 ii)** - The Appellant advises that *"The Environment Agency made it clear to TWUL that, in practice, it would not accept a secondary containment assessment that adopted any other approach than a rigid application of the 110%/25% rule. TWUL's permit application was varied to reflect the Environment Agency's interpretation, on the understanding that TWUL*

[18] Integrated Pollution Prevention and Control, Reference Document on Best Available Techniques on – Emissions from Storage, dated July 2006.
[19] Storing and handling drums and intermediate bulk containers, PPG26 (2011)
[20] Control and monitor emissions for your environmental permit.

could continue to discuss and advance its (correct) interpretation of CIRIA C736. Furthermore, and irrespective of this fact, the fact that the Environment Agency has chosen to regulate the site through the use of improvement conditions cannot fetter TWUL's discretion on the appropriate means to comply with BAT." The Agency does not accept that it has, explicitly or in any other way, indicated that it will only accept secondary containment proposals that rigidly apply the 110%/25% rule. The Agency's guidance first published in 2016 on BAT[21] is clear that alternatives can be proposed. We also restate that the Appellant has not yet submitted any detailed alternative measures which would provide at least the same level of environmental protection as BAT. In any event, the Agency determined the application that was submitted to it and reached its decision accordingly.

17. **Paragraph 26 iii)** - The Appellant references ***"****the lack of specific detail provided in this "advice" or the limits of its relevance".* The Agency does not understand why the Appellant has criticised the use of CAR forms as a means for conveying advice when guidance on secondary containment is publicly available widely, and has been so both throughout the permit determination and prior to the Appellants permit application. The Agency provides multiple avenues and opportunities for clarification of approaches including through enhanced pre-application, discussion during determination and publicly available guidance. At no point prior to the issue of the permit did the Appellant raise concerns on the Agency's interpretation of BAT.

18. **Paragraph 31, 32 117, 118 and 119)** - The Appellant references the Water Resources Act 1991. We consider that we have taken into account all relevant factors, including the legal duties to which we are subject, in coming to our decision on the application. The permit is regulated under EPR2016.

19. **Paragraph 35)** - The Appellant states that *"BAT conclusion 19d envisages that the normal position is to size secondary containment to accommodate the loss of the largest tank within the secondary containment".* The Agency would confirm, as per BAT 19, that techniques to reduce the likelihood and impact of overflows and failures from tanks and vessels are dependent on "the risk posed by the liquids contained in tanks and vessels in terms of soil and/or water contamination". The term 'normal' does not **definitively confirm** that all containment **can** be based on the largest tank only, containment needs to be considered in relation to the risks posed by the material being contained. Without any detailed alternative measures having been submitted by the **Appellant**, with the necessary supporting technical evidence satisfactorily demonstrating that at least equivalent environmental protection will be provided, we consider that we are therefore able to set conditions based on our established guidance for secondary containment and CIRIA C736, on a reasonable and precautionary basis, as described elsewhere in the Agency's Statement and this statement.

20. **Paragraph 42)** - The Appellant has advised that *"The use of the 110 per cent and 25 per cent rules does not follow the "risk-based approach" recommended in CIRIA C736."* Section 4.2.1 of CIRIA C736 is clear *"The basis for much industry practice in the past has been the 110 per cent and 25 per cent rule. Although not following the risk-based approach recommended in this guide, this practice has been in use for many years".* CIRIA C736 also states that *"The recommendation for other multi-tank installations, the 25 per cent rule, is based on the assumption that it is unlikely that more than one tank will fail at any one time. This may be reasonable in circumstances where the contents escape from a primary tank as a result of, for example, tank corrosion or operator error, which is likely to affect only one tank at any one time. However, there may be credible scenarios such as fire or explosion or acts of vandalism*

[21] Guidance Best available techniques: environmental permits

that could affect all of the tanks within a bunded area". In essence, in our view, this means that *increasing* the total level of containment that may be required above the 25% level may be appropriate where credible scenarios indicate the possibility of multi-vessel failure. The Appellant's site risk assessments have identified fire or explosion as a risk.

21. **Paragraph 44)** - The Appellant has advised that *"CIRIA C736 expressly describes the approach taken through the use of the 110 per cent or 25 per cent rules as "arbitrary.""* We do not agree with this and consider, instead, that CIRIA C736 uses the *"arbitrary"* refence in relation to the 10% margin not the 110% capacity of the largest tank within the bund. The 10% margin is set to cover a range of scenarios that could result in the bund overtopping. This includes scenarios such as a surge of liquid caused by the catastrophic failure of the primary tank, protection against overfilling, or the collection of rainfall, in essence ensuring that the bund would not be breached in the event of a tank failure. Our understanding is that the '10% margin' is not based on any particular technical assessment but is considered to be a figure that provides a reasonable general level of protection. Section 4.3.2 of CIRIA C736 sets out that *"the volume of inventory should be taken as the capacity of the primary containment"* i.e. all of the tanks. CIRIA C736 further states that *"In determining containment requirements, the volume of substance should be based on the loss from a credible scenario and this need not necessarily involve the entire site inventory. This should also be discussed and agreed with regulators at an early stage in the design process."* The Appellant did not discuss a 'credible scenario' approach with the Agency at any point during the permit application, and no substantiated evidence was, or has been provided by the Appellant to demonstrate why a reduced containment volume would provide at least the same level of environmental protection from the credible scenario, through their own risk assessments, of a catastrophic failure of tank inventory. Because of explosion or fire

22. **Paragraph 49)** - The Appellant states that *"Later in CIRIA C736 the guidance states "At low risk sites or sites where it can be demonstrated that the probability of a simultaneous occurrence of events is sufficiently low, it may be possible to apply less stringent capacity requirements. Such relaxations should be subject to the designer's and site operator's discretion and the agreement of the various regulatory bodies in the light of the particular circumstances."* This statement is relevant to 'low risk' sites. The Agency would not consider the operation of the Appellant's Reading STC as 'low risk'. The Appellant agreed with this in document 'ADBA Containment Classification Assessment received 11 July 2022[22]' when it identified a 'medium risk' rating for the site. The Agency do not consider that the use of 'credible scenarios' to reduce containment volumes below the 25% identified in CIRIA C736 will provide at least the same level of environmental protection as BAT 19d which requires that *"tanks for liquids are located in a suitable secondary containment".* We maintain our opinion that the correct reading of 'credible scenarios' in CIRIA C736 must be that there are some instances, such as where there is a fire or explosion risk, where the assumption that multiple tanks would not be damaged or lost at the same time cannot properly or credibly be maintained. In such instances there may be a requirement for more than the standard 25% total containment volume. CIRIA C736 is clear in paragraph 4.2.1 that the 25% and 110% rules should be used with the percentage used needing to provide the greater capacity of the two approaches. An applicant may propose an alternative solution, however

[22] Appendix ?? ADBA Containment Classification Assessment received 11 July 2022'

detailed risk assessments to support a relaxation to secondary volume capacity were not submitted as part of the permit application.

23. **Paragraph 58, 59, 60, 61, 62)** - The Appellant identifies a separate secondary containment high level proposal which is included as an appendix to their statement (referenced as the 'AtkinsRealis report'). This information was not available to the Agency to be assessed as part of determination and was only provided as new information post-issue of the permit, in January 2024. It identifies alternative secondary containment proposals supported by a desk based qualitative risk assessment. The risk assessment is not supported by a detailed technical survey of the existing tanks, there is no review of the possible loss of containment scenarios **and it has not been** completed by qualified structural engineers. The proposed alternative containment solutions are not based on detailed technical designs and consist of high-level suggestions of possible containment measures **without any** technical or verifiable evidence to support the proposals. This alternative high-level proposal, presented in January 2024, does not meet with the requirements of the permit. Nor does it demonstrate that this proposal would provide an at least equivalent standard of environmental protection. It is not appropriate or correct for the Appellant to suggest that the Agency has simply refused to consider information that has been submitted following the issue of the permit. Consideration has been given to this information, which was considered to be of limited relevance to the permit and, generally, not fit for purpose.

24. **Paragraph 64)** - The Appellant has stated that the Agency has, unreasonably, blanket refused to consider any site containment system less than 25% of the total tank volume. The Agency does not accept this, the Appellant has had opportunity to provide alternative techniques that would provide at least the same level of environmental protection as part of the determination of their application. Detailed proposals supported by evidence were not presented during the permit determination period and none have been since.

25. **Paragraph 65)** - The Appellant states that the Agency's 'rigid refusal' to consider options not put forward as part of the permit application is unreasonable. The Appellant states, "*Practical impacts continue to be identified following the submission of the permit application"*. The established permitting process for any environmental permit is to assess proposals and evaluate risk as part of the permit determination. The Agency does not set permit conditions or improvement conditions which allow an operator to deviate from previously agreed aspects of the permit determination. Where detailed designs are not yet ready, the Agency sets improvement conditions in order to verify assumptions and risk assessments made during a permit application. If the Appellant seeks to change the nature of the installation or make significant changes to a permit, the Appellant has the option of submitting a variation application to the Agency. Until any such variation is agreed the existing conditions remain in effect and are enforceable. It is open to the Appellant to seek approval for activities outside the scope of the permit for which they applied, that application being the basis on which the Agency has come to its decision. The Appellant has not properly pursued options for the alternative regulatory control of their activities.

26. **Paragraph 68)** - The Appellant proposed a new timescale for the implementation of IC9. The Agency has significant concerns that the proposals being put forward by the Appellant would not meet BAT, and they significantly deviate from the proposals provided as part of our determination. This in essence would frustrate the purpose of the IC and delay any IC implementation. ICs are for this very reason not suitable or appropriate for an applicant to work out how they will demonstrate BAT after an application has been consulted on and determined.

27. **Paragraph 71, 72, 74 and 129)** - The Appellant has had over 5 years to design and deliver improvement works at Reading and other sites. To date the Agency has not received any detailed designs for secondary containment on any of the Appellant's sites applied for as part of this project, or been provided with timescales for implementation. Permits are determined on a bespoke, site by site basis, on their individual merits. As referred to in paragraph 10, above, and outlined in the Agency's Letter to TWUL CEO Chris Weston dated 18th March 2024 the Agency has stated that *"Despite the time that has elapsed we understand that some companies believe that they are unable to implement all the changes and complete the works required to comply with BAT by 31 March 2025. Should you find yourself in this position there is significant risk of enforcement action. In keeping with standard practice we have advised that you should look to document and provide evidence that you have taken all available measures to achieve compliance by the earliest possible date. We have described this as demonstrating 'best endeavours'." Without prejudice to its position in relation to any level of enforcement reaction,* the Agency would consider multiple site improvements within this evidence, however the failings of the Appellant cannot be used as justification for time extensions to ICs**.** The risk of negative impacts where numerous existing facilities are required to improve infrastructure simultaneously is a risk that the Appellant is responsible for managing. We consider that the risk could have been minimised by timely planning and action.

28. **Paragraph 73) -** The Appellant seeks to argue that legal obligations and timescales should be deferred until funding is made available. Funding considerations are entirely separate from funding arrangements and there is no guarantee that funding will be provided in April 2025. In a letter dated 1 August 2023[23] Ofwat stated the following *"Ofwat set price controls for the 2020-25 period through the 2019 price review. As part of the PR19 process, each WaSC had the opportunity to make an enhancement cost claim or other representations in relation to IED compliance costs. If WaSCs considered that the July 2019 correspondence from the Environment Agency contained new information, then representations could have been made to Ofwat in response to the consultation on the slow track draft PR19 determinations (which closed on 30 August 2019). The PR19 final determinations were clear that if a company accepted its final determination, it would be accepting that it had adequate funding to properly carry out its regulated business, including meeting its statutory and regulatory obligations. This included any risk that these requirements might change (to the benefit or detriment of companies) during the 2020-25 period, subject to the uncertainty mechanisms included in the price control package".* Taking that into account, the Agency does not consider it appropriate for the Appellant to seek to rely on a lack of funding to meet its statutory and regulatory obligations.

29. **Paragraph 78 and 79)** – The Appellant has stated that "*the position adopted by the Environment Agency was categoric and give no implication of any room for further discussion as part of the permitting process"* citing a different separate permit application determination (Camberly) and Schedule 5 notice. All sites are risk assessed in relation to the individual risks posed by the site, looking at specific sources of pollution, pathways and receptors. The approach provided in the permit application for Camberly Sewage Treatment Centre (EPR/MP3903MU/A001) is specific to the determination of Camberly and would not constitute a sector wide approach. We would note that question 19 of the Schedule 5 of that application states *"Where the relevant containment standards are not met, a demonstration that their design and construction will achieve equivalent protection should be provided,*

[23] Appendix 12 – Ofwat letter to regulatory directors

along with an explanation of any work required to ensure compliance with the industry standards or equivalent." The Agency does not accept the statement that its position was categoric and provided no room for further discussion, it determined the application that had been submitted to it for determination.

30. **Paragraph 81)** – The Appellant has advised that *"TWUL did not agree with this non-site-specific approach or the subsequent oversized containment volume that arises"*. We would note that at no point during the determination process did the Appellant raise any concerns with the approach of the Agency to the application that was before it.

31. **Paragraph 86)** - The Appellant has stated that *"An updated assessment would be entirely redundant, if it did not provide an opportunity for TWUL to reconsider proposed secondary containment against BAT".* The Agency recognises that the initial high-level proposals provided by the Appellant may need minor amendments or refinements following detailed design. The proposals since put forward by the Appellant seek to use 'credible scenarios' to reduce the containment volumes against the initially proposed and agreed volumes and do not seek to finalise detailed designs but instead look to challenge and re-define the interpretation of BAT and CIRIA C736. The Appellant put forward initial secondary containment proposals that would provide a level of environmental protection that the Agency would accept, and we would expect final detailed designs to be based around these proposals, in accordance with the permit, in general, and IC9 in particular.

32. **Paragraph 96)** – The Appellant considers that *"Specific care needs to be taken concerning generalised statements about "advice". Although the Environment Agency did give a presentation to the water industry in February 2020 which refers to the 110%/25% rule, that reference is only in the context of outdated guidance and not in respect of CIRIA C736."* This is incorrect as the presentation references 'How to comply with your environmental permit: additional guidance for Anaerobic Digestion'. This includes AD and the digestion of organic sludge generated from the treatment of municipal waste water (2013)[24] which clearly states that *"Storage tanks should be located on an impermeable surface with sealed construction joints and must be provided with appropriate secondary containment that can accommodate a volume at least 110% of the total capacity of the tank. Where tanks are within farms the secondary containment should be capable of managing at least 110% of the volume of the largest vessel or 25% of the total tankage volume, whichever is the greater."* This guidance has now been replaced by 'Biological waste treatment: appropriate measures for permitted facilities[25]' which requires that *"You must store all waste on an impermeable surface with contained drainage that meets the recommendations of CIRIA 736".* The presentation also makes clear that *"for secondary containment we require CIRIA C736"* which, as explained earlier, we believe supports the 110%/25% standard as being generally applicable in the absence of specific technical evidence demonstrating the maintenance of at least equivalent levels of environmental protection.

33. **Paragraph 97)** – The Appellant has stated that "*the pre-application advice later provided in March 2021 makes no reference to secondary containment."* This document was not written with the intention to comprehensively address all key risks. Guidance has been available to the Appellant on www.gov.uk throughout the process, including on secondary containment. It is for the Appellant to provide a full risk assessment of the risks posed on site as part of the application, not the Agency.

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[24] How to comply with your environmental permit : additional guidance for Anaerobic Digestion includes AD and the digestion of organic sludge generated from the treatment of municipal waste water (2013)

[25] Biological waste treatment: appropriate measures for permitted facilities

34. **Paragraphs 100 and 101) -** The Appellant refers to the Appropriate Measures response document and correctly identifies that it states that "for existing sites we expect operators to evaluate primary and secondary containment to ensure it is fit for purpose and use alternative means to achieve an equivalent standard". Operators are entitled to evaluate secondary containment, but the Appellant has then failed to propose alternative means of achieving at least the equivalent standard of environmental protection as part of the permit application.

35. **Paragraph 103)** - The Appellant has stated that *"There are several aspects of the 'Appropriate Measures' guidance that are both more cautious and more prescriptive than before, with tighter or more specific controls."* The Agency fundamentally disagrees with this statement. The use of appropriate measures is not mandatory as it is guidance, however applicants can use the techniques identified in the Appropriate Measures guidance to demonstrate how they will meet BAT or suggest an alternative that will **provide at least** the same level(s) of environmental protection. The Appropriate Measures are based on best working practices taken from across an industry sector and are **considered by the Agency** to provide a suitable level of environmental protection.

36. **Paragraph 104)** – The Appellant has advised that *"It is self-evident that the Environment Agency was still in the process of evaluating and determining what steps should be taken by operators as late as 2022".* The Agency fundamentally disagrees with this statement for the reasons set out within the Agency's Statement and this response. Guidance has been widely publicly available on secondary containment since before the Appellant was advised that they would be regulated under EPR2016.

37. **Paragraph 108)** – The Appellant has stated that the e-mail dated 11th August 2023 states that *"Any deviation to this would be classed as an 'alternative approach' to BAT relevant in cases which qualify for derogation".* This statement is not included within the e-mail dated 11th August 202. The Agency does not consider that significant weight should be attached to this statement without a clear explanation of why the Appellant has interpreted the e-mail in this way, giving full context to the point the Appellant is seeking to make, which remains unclear. To confirm, an 'alternative approach' to narrative BAT that **provides at least** the same level(s) of environmental protection as BAT is not a derogation. The e-mail dated 11th August 2023 is clear that *"the derogation process only applies to associated emission levels (AELs) which are not applicable to containment".*

38. **Paragraph 109 – 114)** - The Appropriate Measures guidance is guidance; it is not mandatory. Because the Appropriate Measures guidance is non-binding it does not affect the cost to the Appellant of complying with their IED obligations through EPR2016. To argue that the scope of the financial commitment required only became clearer since the guidance was published is therefore incorrect. The Appellant was informed by Ofwat in a letter dated 1 August 2023 that *"The PR19 final determinations were clear that if a company accepted its final determination, it would be accepting that it had adequate funding to properly carry out its regulated business, including meeting its statutory and regulatory obligations."* The letter also states that *"Companies need to comply with their obligations, and Ofwat's forthcoming 2024 price review (PR24) is not a reason for companies to delay compliance"* and that *"Some companies have said that their IED improvements cannot feasibly be delivered by the 2024 deadline. However, we expect companies to make every effort to have permits in place and to deliver the required improvement works by the December 2024 deadline. To encourage companies not to delay, we will consider whether to provide funding for costs incurred during*

the period 2020-2025." These facts provide a more complete and accurate context to the statements contained in paragraphs 109-114. In our view, we do not believe that the Appellant has, or will, meet the expectations of Ofwat.

39. **Paragraph 115)** - The Appellant has stated that *"It is a gross over-simplification to expressly state or imply that the precise requirements of upgrading existing facilities to BAT would have been able to properly understood at the moment that the Environment Agency stated, in July 2019, that water companies would be subject to IED requirements for the biological treatment of sewage sludge."* The Agency considers that it has neither stated nor implied that water companies would have been able to properly understand site specific requirements the moment they were advised that they would be subject to IED requirements. They would, however, have been able to begin developing reasonably well informed plans, taking into account the amount of information and guidance that was widely publicly available on the requirements of the IED. The Agency notes that it has now been over five years since the Appellant was advised of this and considers that the Appellant has had sufficient time to develop proposals, undertake pre-application discussions, and confirm requirements with the Agency, which it has chosen not to do.

40. **Paragraph 116)** - The Appellant states that *"Relevant guidance was consulted on in 2020 but not published until September 2022. Even then, precise requirements can only be properly understood at the point of a permit application when specific consideration is given to the precise means by which BAT should be evaluated and achieved."* The Agency does not believe this to be correct; it is the Appellant's responsibility to demonstrate how they will meet BAT or propose an alternative measure that will provide at least the same level(s) of environmental protection. The Agency's guidance 'Best available techniques: environmental permits[26]' first issued in February 2016 is clear: *"For BAT that you're proposing to follow, you must explain how you're going to either:*
    - *follow the BAT conclusions and meet the BAT-associated emissions level (for BAT that are contained in BAT conclusions)*
    - *follow the BREF note and the technical guidance for activities that don't have BAT conclusions*

    For any BAT you're not going to follow, you must propose an alternative technique."

41. **Paragraph 118)** - It is unclear what relevance the duty on sewerage undertakers to provide sewerage systems has to the regulation of sewage sludge treatment under the IED. We refer to our comments at paragraph 18, above, and note that this permit is regulated under EPR2016, through which the relevant obligations on the Appellant arise, not the Water Industry Act 1991. In our view, the fact that the Appellant is subject to other statutory duties is of no assistance to it in this appeal.

42. **Paragraph 122)** - The Appellant has stated that *"there is no indication that the operational impacts as a result of the change in approach to regulation or the single deadline for all TWUL STC sites have in any way been factored into the decision-making of the Environment Agency. Cost implications carry a similar risk, as do impacts on wider site compliance."* The Appellant was informed in 2019 of the need to obtain permits and meet the standards required by the Waste Treatment BREF and BAT conclusions. The Agency cannot take responsibility for the Appellant's failure to act on this information in a timely manner. As for the wider impacts on the Appellant's business, the material considerations for any permit application are limited to the site to which the application appertains and cannot and should not include an

[26] Best available techniques: environmental permits

assessment of the wider implications for the operator's business. Notwithstanding this the Agency has indicated that if operators can provide evidence that every effort has been taken to achieve compliance at the earliest opportunity this will be considered in mitigation. We refer to our comments in paragraph 29, above, in relation to funding and cost implications.

43. **Paragraph 125)** – The Appellant has stated that *"In addition, the Environment Agency's approach represents a fundamental misunderstanding of BAT. As set out above, 'available techniques' are expressly defined in the IED as those that are developed "under economically and technically viable conditions, taking into consideration the costs and advantages*" and that "A cost benefit analysis is consequently fundamental to any assessment of what constitutes BAT." The Agency does not agree with this statement. BAT reference documents (BREFs) represent the outcome of the 'Sevilla process' which is a process whereby decisions are made based on scientific and techno-economic information and data, with the participation of all relevant stakeholders. For each sector, an ad-hoc working group updates the existing norms, after a detailed examination of all the facts and data related to the use of the latest state of the art processes and technologies. It is an extensive, inclusive and transparent exchange of information between stakeholders to define new Best Available Techniques and to discuss their inclusion in the reference documents on BAT. These assessments include cost/benefit assessments and considerations and, as such, the cost of achieving BAT, as specified in BREFs, has been assessed to be generally considered affordable for both new and existing plant. Thus, under the IED the cost benefit analysis is considered and determined generically within the BREF negotiation process, not on a site by site or bespoke basis.

44. **Paragraph 128)** – The Appellant considers that *"References to the requirements that are placed on "new" sites are, in the particular circumstances of IED's application to STCs, irrelevant."* We do not believe this statement to be correct, BAT is applicable to new and existing sites, no distinction is made between them in the IED or has transposed through to EPR2016.

45. **240411 APP-EPR-659- TUWL Statement of case Bundle - Reading STW Risk Identification and Containment Assessment Report (original secondary containment assessment for Reading) – dated 18 May 2022 pages 982-1001 -** This information has not previously been provided to the Agency, either as part of the determination process or any subsequent discussions held. We would request that this is removed from any assessment of information.

46. **240411 APP-EPR-659- TUWL Statement of case Bundle - 3 January 2024 meeting between TWUL and the Environment Agency, pages 52-64 -** This information was only partially provided to the Agency as a visual presentation to Area officers, substantially subsequent to the issue of the permit and has not previously been provided as a hard copy or given as part of the determination process. We would request that this is removed from any assessment of information.

<u>Section 3: Conclusion</u>

47. We maintain that the grounds of appeal against IC9, summarised in paragraphs 4-10 of the Appellant's Statement, have no merit. Improvement conditions are used in situations where applications contain insufficient detailed supporting information. They provide a means of

avoiding the application being refused, an outcome which is not in the interests of either party.

The inclusion of IC9 is predicated upon the Appellant having made a high-level commitment to a course of action in its 'Reading STC - Containment Options Report', dated May 2023. The Appellant's commitment to develop a more detailed design based on this report enabled the permit to be issued rather than refused. To attempt to revisit and renegotiate/lessen this condition after issue of the permit appears to undermine the Appellant's previous commitment to pursue more detailed designs based on the Options Report.

That an improvement condition was needed at all is due to the Appellant's failure to produce a site-specific risk assessment in the preceding 4 years. It seems disingenuous of the Appellant to claim that the time limits imposed by IC9 are unreasonable when it has failed so comprehensively over a long period of time to present credible and detailed plans which would have avoided the need for the IC.

Applicants have the opportunity to conduct site specific risk assessments and develop and present alternative approaches to secondary containment which provide an at least equivalent level of environmental protection. The Appellant has had ample opportunity to produce such a scheme but has not done so. Instead it is seeking to argue that some pollution events are so unlikely that secondary containment should not be required to cover these circumstances. This argument is based on the premise that credible scenarios such as fire, explosion or acts of vandalism that could affect all of the tanks within the bunded area are unlikely to happen. However events like these have, and could, occur at AD sites which means that they cannot and should not be excluded from assessments. This would be similar to a motorist arguing that because they are unlikely to have a crash they do not need insurance.

BAT 19 requires that emissions to soil and water be prevented. Arguments about the merits of applying the 110%/25% rule are essentially about the degree of compromise allowed. Providing a containment volume of 25% of the total inventory within a bunded area is itself a compromise based on an assessment of the likelihood that not all the contents of all of the tanks will be lost at the same time. To argue for a reduction below the industry standard 25% is to seek further reduction in environmental protection based on unsupported supposition. The industry standard CIRIA C736 and specifically the 110%/ 25% rule is applied to, and accepted across, multiple sectors.

The Appellant seeks to raise funding and cost benefit equations as grounds for appeal. Cost is dealt with generically under the IED and is not a site-based consideration. Water industry funding arrangements are not material to the permitting process. We therefore believe these are of no relevance to the appeal.

48. The Appellant has advised a completion date of 30 April 2024 for the completion of IC13 in relation to the odour control units. We have no further comments. The Agency acknowledges this, and we will assess this in line with the IC requirements and our Enforcement and Sanctions Policy.

49. For the reasons set out in the Agency's Statement and in this statement we again respectfully request that the Inspector dismiss this appeal.

Section 4: List of Annexes

- Appendix 1 Reading STC - Containment Options Report, dated May 2023
- Appendix 2 - E-mail from Steve Spencer explaining TWUL interpretation of CIRIA and credible scenarios14th December 2023
- Appendix 3 - Agency's holding response 15th December 2023
- Appendix 4 – E-mail response to TWUL dated 17 January 2024 which explains the Agency's interpretation of credible scenarios and the 110/25% rule.
- Appendix 4 - E-mail attachments - Credible Scenarios Thames Water
- Appendix 4 - E-mail attachments - Comments on Assumptions in Slide 3
- Appendix 5 - E-mail Acknowledgement from TWUL dated 18 January 2024
- Appendix 6 - TWUL email providing further explanation of their interpretation maintaining that they are free to choose whichever of the 110% or 25% they consider appropriate.
- Appendix 7 - The Agency's e-mail response dated 15th March 2024
- Appendix 8 - TWUL e-mail response dated 21 March 2024 referring us to Appendix A of the Reading submission.
- Appendix 9 – The Agency's response dated 25 March 2024 which states in clear terms why we didn't accept the 17 January submission.
- Appendix 10 - TWUL e-mail dated 12 April 2024 from Nicola Telcik
- Appendix 11 - Reading STC Compliance Assessment report response dated 22 March 2024
- Appendix 12- Letter to TWUL CEO Chris Weston dated 18th March 2024
- Appendix 13 ADBA Containment Classification Assessment received 11 July 2022
- Appendix 14 – Ofwat letter to regulatory directors