

Appeal by Thames Water Utilities Limited
Environmental Permitting (England and Wales) Regulations 2016
Reading Sludge Treatment Centre, Island Road, Reading RG2 0RP

Thames Water Utilities Limited: Reply
2 May 2024

This document is not intended to reply to each and every paragraph of the Environment Agency’s Statement of Case, particularly where the position of Thames Water Utilities Limited (“TWUL”) has been clearly set out in its own Statement of Case. The paragraphs below address and clarify some of the key issues relevant to the decision to be made by the Planning Inspector.

A risk based approach

1. CIRIA C736 does not mandate a minimum requirement of adherence to either the 110%/25% rule. There are repeated references that are directly relevant, both in the guidance itself and in other related documents, that would appear to have been, for the large part, simply ignored by the Environment Agency in its Statement of Case. The following table sets out relevant quotations from both CIRIA C736 and BAT conclusion 19(d) for ease of reference:

Document	Location	Text	Bundle ref
CIRIA C736	1.1	“[CIRIA C736] advocates a risk-based approach to managing the storage of inventory.”	TW1/13/672
	1.3.3	“The application of this guidance to existing facilities should be based on risk”	TW1/13/674
	1.3.3	“the costs of upgrading existing facilities may outweigh the environmental benefits”	TW1/13/674
	1.5.3	“BAT takes into account the balance between the costs and environmental benefits”	TW1/13/679
	4.1	“If the capacity of a system is too large, resources that might have been invested in other ways may have been wasted, whereas if a system is too small and is incapable of providing effective protection in the event of an incident, the cost of installation may equally have been wasted.”	TW1/13/708
	4.2.1	“Although not following the risk-based approach recommended in this guide, ...”	TW1/13/709
	4.2.1	“The method set out in this guidance provides a quantitative assessment of these assumptions, rather	TW1/13/710

		than relying on an arbitrary allowance of 10 per cent of the primary capacity or 25 per cent of the primary capacity for multiple tanks within a common secondary containment.”	
	4.2.5	“No specific recommendation are made on containment capacities, however, where there is potential for significant pollution to occur an emissions management plan is required informed by an environmental risk assessment. The outcome of the risk assessment determines the containment or other measures that may be required.”	TW1/13/712
	4.3.1	“This section sets out a method for assessing the required site-wide capacity for containment.”	TW1/13/713
	4.3.2	“In some cases, and subject to a risk assessment, it may be appropriate to use the nominal capacity, or [Tank Rated Capacity].”	TW1/13/714
	4.3.2	“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.”	TW1/13/714
	4.5	“Capacity based on risk assessment based on credible scenario for multi-tank installation taking into account tertiary containment provision.”	TW1/13/726
	4.5	“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.”	TW1/13/726
BAT19d		<p>“Depending on the risks posed by the liquids contained in tanks and vessels in terms of soil and/or water contamination, this includes techniques such as:</p> <p>...</p> <ul style="list-style-type: none"> - tanks for liquids that are located in a suitable secondary containment; the volume is normally sized to accommodate the loss of containment of the largest tank within the secondary containment” 	TW1/11/616

BAT

2. Paragraph 89 of the Environment Agency's Statement of Case states:

"Unless the applicability criteria say otherwise, BAT is usually considered to be affordable across the industry sector as a whole for both newly built plant and a "typical" existing plant. Performing a cost benefit analysis is only relevant in cases which qualify for a derogation from BAT and cost alone would not be considered sufficient or appropriate as a reason for a derogation/deviation from BAT."

3. This statement is incorrect. In contrast to the above statement, the term 'available techniques' is defined at Article 3(10)(b) of the IED:

"available techniques' means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator"

4. The definition of 'available techniques' explicitly includes the need for a cost benefit analysis.

5. Paragraph 1.5.2 of CIRIA C736 states:

"BAT takes into account the balance between the costs and environmental benefits"

6. And at 1.3.3:

"the costs of upgrading existing facilities may outweigh the environmental benefits"

7. Costs and benefits are consequently not limited to those occasions where a derogation from BAT is sought but are both an essential consideration of what amounts to BAT in any particular set of circumstances.

IC9

8. Paragraph 118 of the Environment Agency's Statement of Case reads:

"ICs are not intended to be an opportunity for an operator to work out how they will meet BAT. Where an operator is not yet compliant with relevant BAT conclusions, we may accept an application where the operator describes how they will meet the required BAT conclusion within an acceptable timeframe from which we will set ICs."

9. This paragraph raises a significant number of issues:

- i) The Environment Agency has chosen in this case to make use of improvement conditions, recognising that a pragmatic approach is needed for existing sites where there has been a change in the approach taken by the regulator to regulation;
- ii) The operator retains a discretion as to how to meet BAT. It may well be that during the course of operations, or as the practicalities of the permit application develop, the means of achieving BAT will change;

- iii) However, the Environment Agency has adopted a rigid and arbitrary approach to BAT, namely the blanket application of the 110%/25% rule. The implication from the quoted paragraph is that the Environment Agency will not accept a permit application as ‘duly made’ unless a proposal consistent with that arbitrary approach is put forward as part of the application. This is consistent with the wording of the Request for Further Information made by the Environment Agency in respect of the Camberley STC permit application (TW1/36/979);
- iv) Published guidance states that an application should be considered ‘duly made’ when the application contains sufficient information to start to determine the application.
- v) Internal Environment Agency guidance, now withdrawn publicly but still relevant, states¹:

“What does duly made not mean?”

2.4 *Assessing whether an application is duly made is **not** a detailed technical evaluation. We should not make a judgement about the merits of the operator’s proposals at this stage. For example, it may be clear from an application that a permit is unlikely to be granted because the environmental effects would be unacceptable. This would not stop the application being duly made. The fact that the environmental impacts would be unacceptable should result in us refusing the application (or imposing conditions to mitigate the environmental impact) rather than us considering that the application is not complete.”*

- vi) The Environment Agency made it clear in a presentation dated 14 September 2023² that enforcement action would be considered against those sites that, from the end of 2023, had yet to file ‘duly made’ permit applications but continued to operate.
10. Contrary to acceptable practice, the Environment Agency’s stated approach threatens the making of (as opposed to the determination of) a permit application where a difference in views exists over what is meant by BAT, in circumstances where the approach taken by the Environment Agency is inconsistent with the exercise of the operator’s discretion.
 11. In addition, the quoted paragraph fails to recognise the inconsistency within the wording of IC9 itself. Part of condition IC9 as currently drafted reads:

“The plan shall contain the finalised designs and an implementation schedule for the secondary containment systems proposed in the document, Reading STC – Containment Options Report, dated May 2023.”
 12. The wording of this part of IC9 would appear to limit TWUL to the containment system as set out in that specific document.
 13. However, condition IC9 goes on to state:

“The plan should include but not be limited to the following components:

¹ [https://assets.publishing.service.gov.uk/media/5a80b329ed915d74e33fbe80/withdrawn_RGN3 - LIT 8294.pdf](https://assets.publishing.service.gov.uk/media/5a80b329ed915d74e33fbe80/withdrawn_RGN3_-_LIT_8294.pdf), last accessed 30 April 2024 - [TW2/1/6]

² [TW2/2/13-26]

- *An updated BAT assessment with specific regard to BAT 19 of the Waste Treatment BREF”*
14. An “updated BAT assessment” undertaken on behalf of TWUL has identified, consistent with CIRIA C736, that the secondary containment system proposed in the document, *Reading STC – Containment Options Report, dated May 2023*, is more than would be required to meet BAT.
 15. The wording of IC9 is mutually inconsistent, as it appears to allow no room for modifications to be made to the proposed secondary containment system as a consequence of the updated BAT assessment.
 16. It is of note that the improvement condition explicitly requires an updated BAT assessment despite the Environment Agency’s stated position being that *“ICs are not intended to be an opportunity for an operator to work out how they will meet BAT”*.
 17. The solution is to amend the wording of IC9 to permit TWUL to achieve BAT in accordance with any updated BAT assessment, to be conducted in accordance with CIRIA C736 (as correctly interpreted).

Clarifications and corrections

Equivalence

18. The Environment Agency’s Statement of Case at paragraph 20 states:

“Existing facilities may face difficulties in becoming compliant with CIRIA C736 due to the viability of retrofitting to meet the recommendations. However, the same containment assessments are still required, and improvements should be proposed to demonstrate that at least equivalent appropriate measures of environmental protection will be provided.”

19. The paragraph fails to make it clear that ‘equivalent’ measures of environmental protection, must include an assessment of the likelihood of an incident occurring, which requires consideration of a site-specific risk assessment. ‘Risk’ is a product of both ‘likelihood’ and ‘consequence’.

Delay

20. The Environment Agency’s Statement of Case at paragraph 36 states:

“The EPR 2010 set a deadline of 7 July 2015 for newly listed installations such as those for biological treatment of waste for recovery, to obtain an environmental permit. Therefore, the implementation of this aspect of the IED had already been delayed by nearly four years at the point of our confirmation of this requirement to the WaSCs on 2 April 2019.”

21. Defra stated in 2012 that their view was that the treatment of residual sludge was excluded from the scope of the IED. It took the Environment Agency until 2019 to clarify its position. That delay should not adversely impact on TWUL. It then took the Environment Agency until September 2022 to publish its guidance on ‘Appropriate Measures’, well after the deadline for applications for funding in PR19.

Engagement with the Environment Agency

22. The Environment Agency's Statement of Case at paragraph 55 states:

"The Appellant did not raise any concerns around the use of CIRIA C736 as part of the application determination."

23. Consideration of CIRIA C736 and the permit application made by TWUL needs to be considered in context. This has been a consistent topic of discussion at regional and national level.
24. Reading is not the only site where these issues have arisen. Site-specific risk-based assessments, focussing on a credible scenario approach, have been submitted to the Environment Agency since December 2021. The Environment Agency's Request for Further Information in respect of Camberley STC, dated 24 June 2022, left no room for further discussion as part of the permitting application process.

Biogas and risk assessment

25. It is agreed that biogas is combustible. However, biogas, given its methane concentrations, is not explosive. A number of safeguards are present and in place prior to the installation of AD assets to minimise the risk of fire. This fact alone emphasises the need for a site-specific risk assessment. At Reading, risk assessment of credible failure scenarios has concluded that the highest risk is human error or failure of a pipe penetration resulting in a loss of containment. The probability of this happening on two tanks simultaneously has been assessed as negligible. Sewage sludge itself is not flammable and the risk of catastrophic impact from one tank failure on adjacent tanks is not considered credible.

Volume of containment

26. The tanks are not hydraulically linked and TWUL does not seek to put forward a containment proposal less than 110% of the main tank. The implication by the Environment Agency that TWUL seeks such an outcome, for example at paragraph 90 of the Environment Agency's Statement of Case, is inaccurate.

Evidence

27. The Environment Agency's Statement of Case at paragraph 90 states:

"This has included discussions with one of the authors of CIRIA C736 who has confirmed that the use of 'credible scenarios' is included to cover situations where more than one tank could be compromised, and as such more than the 110% and 25% of the standard volume may be required."

28. This hearsay summary of "discussions" is a wholly inappropriate and inadequate attempt to present evidence on the meaning and correct interpretation of a critical guidance document. At no stage in CIRIA C736 is this stated and, as identified above, such an interpretation runs contrary to numerous references to the need for site specific risk assessment to inform required containment measures and the arbitrary nature of the 110%/25% rule.

Time for compliance

29. Until individual site permits have been determined and improvement condition plans have been agreed with the Environment Agency, TWUL is hampered in their ability to engage with contractors on the final design of solutions or indeed delivery with contractors and any timescale for compliance needs to reflect this.