SEWERAGE SECTOR GUIDANCE

CHANGE PROPOSAL FORM

Please complete the form below to submit a change proposal to the Sewerage Adoption Panel.

Name of Proposed Change:

Add new sub-clauses in DCG for polymer-coated corrugated steel attenuation systems for below ground stormwater attenuation & storage applications

Section 1 - Proposed Change

A. Please outline the details (including any relevant supporting documentation) of the proposed change.

The current version of the Design and Construction Guidance (DCG) includes design criteria for modular geocellular systems and, since Version 2.2, arch-shaped thermoplastic chamber systems. However, polymer-coated corrugated steel attenuation systems, which are widely used in surface water attenuation schemes across the UK and Europe, remain unreferenced in DCG.

This absence may unintentionally discourage consideration of polymer-coated corrugated steel attenuation systems by sewerage undertakers despite the systems being structurally robust, durable and designed in accordance with recognised standards including BS EN 1993-4-2, National Highways CD 375 and WIS 4-25-01 Issue 1. Additional information relating to adoption experience, sediment management, inspection, maintenance and durability is provided within the accompanying Technical Position Paper.

This Change Proposal seeks to introduce sub-clauses into Sections C7.8 and E2 of the DCG to clarify the acceptability of corrugated steel attenuation tanks, bringing them into line with current industry practice and helping ensure consistent interpretation and decision-making by developers and water companies alike.

Proposed new sub-clauses:

New sub-clause inserted after C7.8.3

The structural design of stormwater attenuation tanks constructed using helically wound corrugated steel pipes shall be undertaken by a suitably qualified person. Design shall be in accordance with BS EN 1993-4-2, and may reference National Highways CD 375 – Corrugated Steel Buried Structures for guidance on loading, structural detailing, and durability. Reference should also be made to WIS 4-25-01 Issue 1: Specification for the use of steel tanks in the water industry. Corrosion protection, durability (minimum 100-year design life), and watertightness requirements shall be evidenced.

New sub-clause after E2.48:
E2.49 Corrugated Steel Pipe Stormwater Tanks
Polymer-coated corrugated steel attenuation systems shall comply with WIS 4-25-01 Issue 1 and demonstrate structural adequacy through design calculations to BS EN 1993-4-2 or equivalent. The system may also follow design guidance from CD 375 for

installations subject to highway loading. The system shall allow for safe access, inspection, flushing/jetting, and de-silting, with no compromise to structural integrity or protective coatings. Appropriate inspection, maintenance and sediment management provisions shall be incorporated within the system design. Where installed below highways, loading requirements must be approved by both the sewerage undertaker and, where applicable, the highway authority.

B. Has the proposed change been considered previously (including during any prior consultation process)? If so, please provide details.

No.

C. Does the proposed change need to be considered by a specific date? If so, please explain why?

As soon as practicable. The absence of recognition for polymer-coated corrugated steel attenuation systems in DCG continues to create uncertainty regarding their consideration for adoption despite the availability of additional evidence relating to adoption precedent, sediment management and durability.

D. Does the proposed change raise any health and safety issues? If so, please provide details.

No.

E. Please provide any further information relevant to the change proposal.

Polymer-coated corrugated steel attenuation systems have been used successfully in attenuation applications across the UK and Europe. The accompanying Technical Position Paper provides additional evidence relating to adoption precedent, sediment management, inspection and maintenance, durability and structural performance. This information has been assembled specifically in response to matters identified during the previous review of the proposal.

Section 2 - Scope of the Proposed Change

A. Which section(s) of the Sewerage Sector Guidance and Model Adoption Agreement does the proposed change concern? Please provide specific references to the relevant documentation.

- DCG: C7.8 (Detailed Design of Tanks) – Please also see Section 1A
- DCG: E2.48–E2.49 (Civil Engineering Specification) – Please also see Section 1A

B. What consequential amendments to the Sewerage Sector Guidance and Model Adoption Agreement would be required as a result of the proposed change? Please provide specific references.

- Inclusion of WIS 4-25-01 and CD 375 in Appendix IV – Water Industry Specifications – Please also see Section 1A

- Potential reference in Appendix II or III if structural codes are cited there – Please also see Section 1A

Section 3 - Rationale for the proposed change

A. What is the nature and effect of the current position/existing arrangements?

DCG currently excludes corrugated steel tanks, even though they are used successfully and covered by existing water and highway industry specifications. As a consequence, polymer-coated steel attenuation systems are rarely considered for adoption despite evidence of successful operational use and adoption-related experience.

B. What is the nature and effect of the proposed change?

The proposed change would establish a clear framework through which polymer-coated corrugated steel attenuation systems may be assessed against objective requirements relating to structural performance, durability, sediment management, inspection, maintenance and long-term asset stewardship.

C. Why is the proposed change necessary?

The previous review identified concerns relating to adoption precedent, sediment management and durability. The accompanying Technical Position Paper provides additional information addressing those matters and demonstrates that polymer-coated corrugated steel attenuation systems are capable of being assessed against recognised engineering and asset management criteria.

D. What is the desired outcome of the proposed change?

To have polymer-coated corrugated steel attenuation systems explicitly included in DCG as an acceptable form of adoptable stormwater attenuation.

Section 4 – Impact on the Principles and Objectives of the Code

A. Outline, how and why the proposed change maintains consistency with the principles and objectives of the Code for Adoption Agreements, and any relevant statutory or regulatory requirements?

The proposed change is consistent with the principles of the Code because it establishes objective criteria through which polymer-coated corrugated steel attenuation systems may be assessed whilst maintaining requirements relating to structural performance, durability, inspection, maintenance and asset stewardship.

Section 5 – Impact on Customers and Sewerage Companies

A. What is the impact of the proposed change (be it positive and/or negative) on Customers?

Positive – increased availability of technically assessed attenuation solutions and greater flexibility in responding to site-specific engineering requirements.

B. Is there any evidence of customer concern relating to the proposed change? If so, please provide details.

No formal submissions, but anecdotal developer frustration when alternative tank systems are rejected due to DCG omission.

C. What is the impact of the proposed change (be it positive and/or negative) on Sewerage Companies?

Positive – a clear framework through which polymer-coated corrugated steel attenuation systems may be assessed where they satisfy adoption requirements relating to durability, maintenance and operational performance.

D. Estimate how much notice Customers and Sewerage Companies may reasonably require to be able to meet any new requirements arising from the proposed change.

Minimal – no technical burden, as steel tanks are already in use under bespoke approvals.

E. What is the suggested implementation date of the proposed change?

As soon as is practicable, as soon as next DCG revision allows (see Section 1C).

Section 6 – Stakeholder Engagement

A. Please outline any informal/formal consultation undertaken with relevant stakeholders likely to be affected by the proposed change, including details of any responses provided by stakeholders.

Discussions with design engineers, developers, and adopting authorities highlight a recurring interest in using steel tanks, but concerns persist over their omission from DCG despite being widely used and specified in public sector standards. The attached

Technical Position Paper includes examples of adopted, adoptable-intent and utility-sector projects which were not available at the time of the original submission. The examples included within the Technical Position Paper demonstrate that polymer-coated corrugated steel attenuation systems are already being considered within environments where adoption, long-term maintenance and asset stewardship are important requirements.
Section 7 – Applicant's Details
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