

Code for Adoption Agreements

Sewerage sector documents: Change proposal (Ref 015)

Modification proposal	Sewerage Sector Guidance Appendix C – Design and Construction Guidance: Perforated plastic pipes
Independent Water Adoption Panel Recommendation	The Panel recommended making a change but proposed using an alternative approach
Decision	Ofwat has approved making a change using the alternative approach recommended by the Panel
Publication date	30 August 2023
Implementation date	01 October 2023

Background

The British Plastics Federation (**BPF**) submitted this change proposal to the Independent Sewerage Adoption Panel (**the Panel**) on 14 December 2022, with the Panel publishing the proposal on its website on the same day. The function of the Panel is to consider change proposals to the [sewerage sector guidance and model sewerage adoption agreement](#) (**the Sewerage Sector Documents**) which apply to companies operating wholly or mainly in England. These documents were developed by companies as required by the [Code for Adoption Agreements](#) (**the Code**) and came into effect in April 2020. A change proposal is defined in the Code as a proposed change to the sector guidance or the model adoption agreements.

The change proposed by BPF concerns the use of perforated plastic pipes (**PPPs**) for infiltration trenches and filter drains. The BPF states that the current Sewerage Sector Documents Appendix C – Design and Construction Guidance (**DCG**) can prevent wastewater companies from accepting the use of PPPs in designs. This is due to the material standards that are set in the DCG for the use of thermoplastics in watertight systems being applied to

other situations in which thermoplastic pipes may be used. This is despite the DCG also confirming elsewhere in the document that the use of PPPs is permitted.

The change proposal

The BPF considers that the DCG provides inaccurate material standards for thermoplastics used in drainage ditches and filter drains. In its change proposal form submitted to the Panel, the BPF notes that, section C8 part 1 of the DCG requires that materials being used in the construction of new sewers should comply with the requirements set out in part E of the DCG. The BPF then notes that section E2.21 and E2.22 of the DCG, which give the material requirements for the use of thermoplastic pipes, are the requirements for the use of thermoplastic pipes in non-pressurised, watertight systems. It states that this has resulted in users of the DCG requiring the material standards for thermoplastic pipes set out in sections E.2.21 and E2.22 be applied to non-watertight applications of thermoplastic pipes.

The BPF states that these material standards are not suitable for other situations in which thermoplastic pipes may be used, specifically the use of PPPs in infiltration trenches and filter drains. The standards set out in sections E2.21 and E2.22 would require the pipes to be watertight. This would prevent the use of PPPs as PPPs are, by definition, not watertight.

The BPF also points out that part C section 7.9 of the DCG specifically permits the use of perforated pipes in infiltration trenches and filter drains.

The BPF states that there are no British or European standards for thermoplastic pipes and fittings for infiltration trenches and filter drains. It therefore suggests amending the DCG to signpost users to the National Highways' Specifications for Highway Works¹ as a standard to use for thermoplastic pipes used in infiltration trenches and filter drains; specifically:

- Add note (i) to E.21 “Modification of Thermoplastics Solid Wall Pipes and Fittings for use in filter drains is described in the ‘Specification for Highway Works’, Series 500, Table 5/1”; and
- Add note (ii) to E.22 “Thermoplastics structured wall pipes and fittings for use in infiltration trenches and filter drains are described in the ‘Specification for Highway Works’, Series 500, Clause 518.”

Consultation and assessment

¹ <https://www.standardsforhighways.co.uk/tses/attachments/d979f80c-d69b-4a50-896f-50d7c27dcdc>

In submitting its recommendation, the Panel confirmed that it met the Code requirement² to assess the change in terms of:

- The need for change, for example, is it a service improvement or is it needed to address a particular issue?
- Consistency with the principles and objectives of the Code, and any relevant statutory requirements; and
- The impact of the change (be it positive and/or negative) on customers and on water companies.

In considering the change proposal, the Panel has:

- discussed the proposal at three meetings;
- asked the BPF to provide further clarification on the scale of the problem and the practical difficulties caused by it;
- sought feedback from its members' companies; and
- consulted with its technical sub-group.

Panel recommendation

On 16 June 2023, the Panel recommended to Ofwat, by unanimous agreement, that we approve a change to the wastewater sector documents. However, the Panel has proposed an alternative change be made to the wastewater sector documents than that which was proposed by the BPF. In reaching its decision, the Panel stated that it has considered the following issues:

- There appeared to the Panel to have been an error in the cross-referencing in the DCG as there had been a previous reference to perforated pipes in the Sewers for Adoption document that preceded the Codes for Adoption and the Sewer Sector Documents.³ However, any pipes, including perforated pipes, would need to comply with the specifications for strength rating and maintain the same level of structural integrity.
- Not every wastewater company adopts Sustainable Drainage Systems (**SuDS**), but the Panel notes that where SuDS were adopted by wastewater companies, any perforated pipes needed to comply with the wastewater company's specifications. Some wastewater companies were happy to rely on the current Highways Authority specification, but this is not universal to all wastewater companies.
- The Panel's Technical Sub-Group response raised concerns regarding the suitability of the Highways Authority specification as the default standard and suggested that if a specification clause for perforated pipes was added to the DCG, it would need to be

² See paragraph 3.8.11 of the Code.

³ [SfA-8-Master-2.pdf \(water.org.uk\)](#)

very detailed. Therefore, the proposed change (which includes reference to the Highways Authority specification) was not supported by the Panel's consultation.

- The inclusion of a detailed specification may be difficult to agree across the industry, as wastewater companies have different policies on specifications and the adoption of SuDS. The Panel was therefore concerned that the inclusion of a prescriptive specification could give rise to other difficulties in practice.

The Panel stated that, while it was not persuaded to recommend the specific change that was proposed by BPF, it considers that the sewerage sector documents could be improved to rectify the apparent error relating to the reference to perforated pipes and give sufficient flexibility for the use of perforated pipes, subject to the agreement of a suitable specification with water undertakers on a case-by-case basis.

The Panel recommends that the following change is made to the DCG to insert the following wording into paragraph C7.1.2 which is highlighted below in red font:

“C7.1.2 Infiltration components

1. In almost all cases, infiltration drainage components can be constructed in proximity to buildings without any detrimental impact on building foundations. However, in some ground conditions problems can occur particularly, where the infiltration is concentrated in a small area.
2. Where infiltration is proposed within 5m of foundations of any buildings or other structures, this should be agreed with a geotechnical specialist who is the designer of the foundations of the building or structure. Details should be submitted to the sewerage company with the S104 Application. Further guidance can be found in Chapter 25 of the CIRIA Report C753_The SuDS Manual and 'Using SuDS close to buildings' on the Susdrain Website.
3. The local authority can impose requirements to prevent pollution of groundwater from polluted surface water.
4. Some infiltration components as listed in C7.4 to C7.10 may require or benefit from the use of perforated pipes, but in such circumstances these pipes sit outside of the specifications given in Clause E2.18 to E2.22. Such perforated pipes are normally a bespoke design to meet the requirements of the infiltration component, its location and depth. Therefore, each situation will have a unique design and should be agreed with your sewerage company. However, for guidance purposes please refer to Manual of Contract Documents for Highway Works Volume 1 Specification for Highway Works, Table 5/1”

Our decision and reasons

We have considered the above issues and all supporting documentation provided to us by the Panel and have decided to approve the change based on the Panel's alternative approach.

We agree with the BPF and the Panel that there appears to have been an oversight in the DCG as the Sewers for Adoption document that preceded the Codes for Adoption and the Sewer Sector Documents included guidance relating to perforated pipes which is not included in the DCG. We note that the Panel has confirmed that it has shared its recommended approach with the BPF and the BPF did not have any comments on the Panel's recommendation. We therefore consider the addition to section C7.1.2 of the DCG as recommended by the Panel is a reasonable way to make it clear that PPPs can be used in the construction of SuDS where appropriate. This approach aligns with the Code principles Clear, complete and current; Efficiency and Predictability and transparency in that it will provide clarity and certainty for companies and customers.

Decision notice

In accordance with paragraph 3.9.4 of the Code Ofwat approves this Change Proposal using the alternative approach recommended by the Panel.

Emily Bulman

Director, Charges, customers and developer services