

TGN12 - TANKERS, STATIC TANKS AND BOWSERS

Introduction

When normal supply arrangements are disrupted, either as a result of a planned shutdown of the distribution network or following an operational emergency, water undertakers may provide alternative supplies to customers. This includes the use of tankers, static tanks, bowsers or bottled water. The distribution of bottled water is not covered by this TGN. Under the Security and Emergency Measures Direction 2006 issued by Defra, undertakers are required to supply a minimum of 10 litres per person per day if mains supplies are unavailable or 20 litres per person per day in incidents lasting more than 5 days.

The requirements for sampling tankers, static tanks and bowsers is covered under Regulation 6 of the Water Supply (Water Quality) Regulations 2016 and their equivalents in the devolved administrations (“the Regulations”), with further information given in the guidance to these Regulations issued by the Drinking Water Inspectorate in 2016.

Good practice

General

1. Water undertakers should have procedures in place to ensure the smooth deployment of alternative supplies across their supply area.
2. Undertakers should consider the need to have a pre-planned list of appropriate locations to place static tanks and bowsers, taking into account accessibility for consumers, risk of vandalism and contamination, and suitability for filling and re-filling by tanker.
3. Where undertakers employ the use of third party vehicles and equipment, additional protection is needed to ensure these are likely to be available when needed. Undertakers should consider having plans in place to contact alternative providers. The Water UK mutual aid scheme has been set up so that undertakers can request additional equipment from other undertakers for temporary use during an emergency.
4. The plans should be regularly tested and updated where necessary.

Personnel

1. All personnel involved in the deployment and use of tankers, static tanks and bowsers should hold a National Water Hygiene Card (see TGN No.1). The only exception is tanker drivers provided they do not have contact with the equipment to be deployed including associated fittings such as hoses.

Equipment and vehicles

1. All clothing and personal protective equipment should be clean and kept suitable for use on restricted operations (e.g. separate from other equipment).
2. Road tankers, tanks and bowsers should be approved in accordance with Regulation 31 (or its equivalent in previous Regulations) for either permanent or emergency use.
3. Vehicles, equipment and fittings used in water supply operations must not be used for any other purpose and kept clean internally and externally.

4. Petrochemicals, oils and chemicals and any fuel-driven equipment should be kept separate from pipework and fittings during transport.
5. Pipework and fittings should be kept above the vehicle floor and pipes should be end-capped. Small fittings should be kept in their original protective wrappings or in clean polythene bags.
6. Used/soiled equipment should be thoroughly cleaned and disinfected before being returned to use.
7. Each vehicle should carry hand washing facilities, preferably soap and water, but waterless hand cleaner and paper towel may be used.
8. In an emergency, tankers normally used for the transport of food-grade liquids can be used, but should be subject to additional washing, disinfection and flushing depending on the previous use. In any case, all materials in contact with potable water should meet the requirements of Regulation 31 (or its equivalent in previous Regulations).
9. Tankers and bowsers may be kept in a “ready condition” provided there is a suitable regime of turnover and sampling or periodic disinfection and sampling, and that the appropriate records are maintained.
10. If not stored in a state of readiness, tankers, static tanks and bowsers should be left drained and stored in area where the risk of external contamination is minimised.
11. Tankers, static tanks and bowsers should be able to be locked to prevent unauthorised access, and be marked with a unique number for reference and audit.

Filling

1. All tankers, static tanks and bowsers should be completely empty before filling.
2. All equipment (hoses, hydrants and standpipes) used for filling must be kept specifically for that purpose, stored appropriately and cleaned and disinfected before use. The filling point should also be flushed and where necessary disinfected before use. Acceptable disinfection methods include the use of steam-cleaning equipment (supported by an appropriate method statement) and chlorine solutions.
3. Appropriate arrangements and methods should be in place to ensure suitable disposal of any chlorinated water.
4. Water undertakers should consider nominating designated filling points that can guarantee a rapid filling rate.
5. At these sites the filling point should be subject to regular flushing to minimise any risk of deterioration in water quality.

Deployment

1. Before delivery of static tanks and bowsers, undertakers should ensure that they are in a safe and secure position. They should be placed in accordance with legislation with regard to signing, lighting and guarding.

2. All tanks and bowsers should be checked for the expected chlorine residual at the point of use.
3. Access and filling points should be locked and secured to prevent contamination.
4. Static tanks and bowsers should be clearly signed with “boil before use” notices. This is due to the risk of contamination from the vessel used by the consumer to carry water to the point of use.
5. The position of the equipment should be recorded and a re-filling and sampling plan put in place.
6. Where re-filling operations take place they should be arranged to ensure an air gap between the delivery hose and the water in the tank to prevent back-syphoning. If this is impractical then a double check valve should be fitted in the re-filling device.
7. The Water Supply (Water Quality) Regulations 2016 require a sample to be taken for bacteriological and physico-chemical parameters from each deployed bowser or static tank that has been in continuous deployment for 48 hours. Where a bowser or static tank is in continuous use for longer than 96 hours, full chemical and bacteriological analysis should be undertaken.