NCASS™

A GUIDE TO:

MAINTAINING WATER STORAGE CONTAINERS AND PIPEWORK IN MOBILE CATERING UNITS

Introduction

There must be an adequate wholesome supply of potable (drinking) water in place within mobile catering units, for drinking, cleaning and preparing food, for cleaning food equipment and surfaces and for handwashing.

There can be a greater risk of contamination in temporary water supplies and precautions must be taken to make sure the water does not become contaminated.

Mobile catering units (e.g. gazebos, vehicles, trailers) will use temporary water storage systems e.g. water containers, which must be clean, properly disinfected and maintained in good repair. These must be filled with care to avoid contaminating the water supply, so any hoses or connections that are used also need to be suitable for use, properly cleaned, maintained and protected from contamination.

If the catering unit has been adapted to include an inbuilt pump and piped system to pull through the water supply, then the pipework etc must be suitable for use with potable (drinking) water, clean and have been properly disinfected.

Failure to properly maintain temporary water storage systems can lead to the build-up of harmful bacteria or unpleasant algal growth. Rinsing with fresh water alone will not be sufficient.

This handy guide will outline the important steps to be taken.

image https://www.directwatertanks.co.uk/

Suitable Water Storage Containers

Water containers must be:

- Constructed of material suitable for contact with drinking water (e.g. food safe plastics).
- Clean and in good repair
- Clearly labelled “drinking water only”.
- Not used for any other purpose then holding drinking water.
- Have close-fitting lids/caps, to prevent external contamination.

When in use consideration must be given to where containers are positioned to prevent contamination e.g. away from refuse bins, food preparation surfaces, generators (to avoid diesel leakage). They should also be sheltered from direct sunlight to prevent algal growth. The use of black or blue coloured containers can help to reduce algal growth by blocking out sunlight.

When not in use they should be emptied and suitably stored to prevent contamination and algal growth.

Cleaning and Disinfection of Water Containers

Water containers must be cleaned and properly chlorinated (disinfected). This means cleaning and flushing through containers with a food safe chlorine base sterilant e.g. Chemtabs, Aquachlor, Feedchlor, Milton or similar. Then rinsing to remove any chemical residue.

The sterilant must be used in accordance with the manufacturer’s instructions, so be sure to pay attention to these carefully before use. An assessment under the Control of Substances Hazardous to Health (COSHH) should also be made. (For more details on the NCASS COSHH tool see the Additional Resources.)

It is advisable to clean and chlorinate water containers at least once a month. If containers are used irregularly then they should be cleaned and chlorinated before each use e.g. cleaned before each event.

Water containers must be kept clean both on the inside and the outside. The cap/lid of the container as well as the neck of the container must also be clean.

Never use a water container that is discoloured/green with algae growth on the inside.

Examples of unacceptable dirty water containers:

Steps for cleaning water containers, associated pipes and pumps:

1. Empty and remove any remaining water from the containers.

2. Clean the outside of containers and caps using hot water and detergent to remove dirt/ contamination and rinse.

3. Following the manufacturer's instructions make up a suitable chlorinated solution (consider the use of measuring jugs/spoons, protective gloves and goggles). Fill the water container with the solution to the brim and leave to stand for the required contact time.

The contact time is the length of time that the chemical solution needs to be in contact with the container to work effectively and reduce bacterial contamination to safe levels. Refer to the manufacturer's instructions for details.

4. Clean and soak any detachable pipework that is used in connection with the containers and the container caps in a suitable bowl/container filled with more of the chlorinated solution. Consider using a suitable designated cleaning brush to scrub and clean the inside of the cap and the neck of the water container (which can harbour bacteria).

5. After the required contact time, rinse containers, caps, associated pipework etc with fresh water.

Use only fresh mains supply water for cleaning and rinsing.

6. Seal the water containers with the caps. Store the containers and associated pipework in a clean hygienic area.

To evidence these arrangements, it is recommended that cleaning and chlorination steps are recorded in the food safety management system. For example, NCASS members can record when they have cleaned their water containers in the Daily Record within the Daily Dary or alternatively create an action in the Digital SMS. Alternatively use the template Disinfection log included within the annex of this guide. Use this handy log to to list of all water supply equipment (e.g. containers, pipework hoses), and evidence and keep track of when they have been cleaned and disinfected.

If there are visible debris on the inside of a container that have not been removed by cleaning and disinfection, then cease to use and replace with a new water container.

Cleaning and Disinfection of Hoses and Pipework

Any pipework used in connection with the water supply must be:

- Constructed of material suitable for contact with drinking water. (This does not apply to garden hose pipe).
- Labelled “drinking water only” and not used for any other purpose.
- Clean and properly chlorinated.

Many catering vehicles and trailers will have fixed pipe water installations in place to deliver water to sinks and wash hand basins. This will often connect to a water pump and section of detachable flexible hose or feed pipe that fits inside the water container. Despite being fixed in place the pipework and associated parts must still be regularly cleaned and flushed through with chlorinated solution.

Alternatively suitable flexible detachable hoses may be used throughout but these must also be regularly cleaned, flushed through (chlorinated) and then drained before use. When not in use flexible detachable hoses should be detached, drained, rolled tight with ends capped on reels or racks and stored in a sanitary manner.

As with water containers consideration should be given to where water hoses are sited when in use and stored, avoiding direct sunlight. Water hoses and feed pipes must be protected from contamination and therefore should not be placed on the floor. Treat them with the same consideration and care as with any other piece of food equipment.

This hose connection/feed pipe has been placed on the floor and must now be treated as contaminated, requiring cleaning and disinfection before further use to connect with water containers.

For fixed pipework, which cannot be disconnected – pump the chlorine solution through the pipes for the required contact time. Then pump through/rinse with fresh water. Allow water to stand in system for at a least 1 hour before use to remove chlorine residue. Then flush again before use. This should be repeated every 3 months or when the system /installation is changed in line with BS8551:2015.

For detachable flexible hoses including any feed pipes that fit inside water containers or are used for refilling water containers – these should be cleaned and flushed through with chlorine before use or at the same frequency as water containers are cleaned.

Avoid using hose that is typically designed for use in gardens e.g. garden hose pipe. Many event organisers and local authorities discourage this and may even require its removal as it is not designed to be suitable for use with drinking water.

Safe Refilling of Containers

Always aim arrive to events, festivals or trading sites with filled water containers, and enough water to trade safely e.g. to be able to carry out sufficient cleaning and handwashing etc.

It is advisable to empty and replenish containers with fresh water daily.

Most event sites will have a water supply to refill containers. Water containers must be connected to these water supplies and filled with approved fittings, constructed of material suitable for contact with water, labelled for drinking water only and not used for any other purpose.

Avoid filling containers with a pipe/hose if possible. If a filling pipe must be used then ensure the following precautions are taken:

- Ensure it is suitable for contact with drinking water and is cleaned before use.
- Clean and chlorinate it in line with water container cleaning procedures.
- When in use keep it free from contamination and never place on the ground.
- When not in use store it hygienically, protecting it from contamination.
- Where possible use a pipe with a no return valve.

Garden hose pipe should not be used to connect to the event organisers water supply as it could cause back flow into the system and contaminate the whole water supply. Follow the event organisers on-site rules and requirements and act accordingly.

Without using a hose pipe, water containers can be filled directly from the taps at the closest standpipe/water supply. It is recommended to create a suitable pallet or prop to place the water container on top of to ensure it is closer to the tap, preventing water spillage during filling which can make the surrounding ground waterlogged and muddy. This can also protect the containers from ground contamination.

Where possible consider limiting containers to 10litres so they can be safely carried. For larger containers provide a suitable trolly to safely manoeuvre them and to avoid manual handling injuries. Some cylindrical water containers are designed to be rolled but must be cleaned after rolling across the ground.

Disposal of Wastewater

Waste water from washing up, food preparation and hand washing etc must be collected into separate water containers ("grey water" tanks). Waste water containers must be positioned at drainage points e.g. under sinks or near to where food preparation or cleaning is carried out as applicable. It must not be allowed to "run off" onto the surrounding grassland, walkways or roads. These containers should be of sufficient size or number to collect the necessary wastewater that is produced. They must be clearly labelled for wastewater (or distinguished by colour) and not used for any other purpose, certainly not for carrying clean water (drinking water).

Wastewater containers must be regularly cleaned and disinfected, be well maintained and leak proof. They must be emptied into appropriate waste disposal points e.g. foul water drains. Avoid emptying containers into storm water drains or nearby water sources e.g. ponds, rivers or streams.

Intermediate Bulk Containers (IBCs) are 1000litre industrial grade containers which most events and festivals use for disposal and storage of wastewater, where there are no nearby foul water drains. They have a hole in the top where the contents of wastewater containers can be emptied. It can be difficult to lift and aim wastewater into this opening, therefore the following is recommended to make this process easier:

- Limit the wastewater container size/weight so they can be safely lifted and poured at shoulder height e.g. 10litres.
- Use a suitable wastewater container for carrying and pouring like a jerry can or trug, not a gastro/open tray container.

The ground surrounding the IBC can get waterlogged and muddy due to spilled wastewater which can cause issues with run off, contamination and slips and trips. Aim to get all of the wastewater into the IBS, taking due care and consideration. Report IBC conditions e.g. leaks, to the event management.

Event organisers are encouraged to supply low level IBCs which are ergonomically more practical and help to minimise manual handling risks etc when emptying wastewater containers.

IBCs are 1000litre containers which most events and festivals use for the collection and disposal of wastewater.

Chlorinated water from the cleaning and disinfection of water containers and pipework etc can be disposed of safely along with wastewater. Chlorine solutions up to 2mg/litre may normally be disposed of into a foul drain. Concentrated chlorine solutions should be further diluted to less than 2mg/litre before disposal to a foul drain.

ANNEX

Disinfection Log

Use this handy log to list of all water supply equipment e.g. containers, pipework hoses, and evidence and keep track of when they have been cleaned and disinfected.

Item No.	Item Description (containers, pipework)	Date/Time	Signed	Notes

Additional Resources/Further Guidance

The NCASS Safety Management System:
https://www.ncass.org.uk/safetymanagementsystem/

To access the NCASS COSHH Tool log into the Member Dashboard:
https://www.ncass.org.uk/member-dashboard/

Purple Event Guide:
https://www.thepurpleguide.co.uk/

“Guidelines for the Provision of Temporary Drinking Water Supplies at Events” produced by the Water Health Partnership for Wales.

British Standard BS8551:2015 Provision & Management of Temporary Water Supplies and Distribution Networks – Code of Practice.

Contact NCASS

t. 0300 124 6866
e. info@ncass.org.uk

References

A special thank you to Hannah Ward, Environmental Health Specialist of Forward-Thinking Solutions, for supplying the images and contributing to the content included in this guide.