

Schools that provide, transport, or produce water and ice for purposes of student hydration must ensure they are providing a safe product, per R-9-8-706 of the Arizona Administrative Code. To help ensure compliance with these regulations and safe delivery of water and ice to students, staff, volunteers, visitors, and the general public at school campuses and activities, the Department has developed these guidelines.

These guidelines along with the Sample Standard Operating Procedures (SOPs) should serve as a resource as each school develops a plan for safe student hydration.

1. Water and Ice Source (A.A.C. R9-8-706B)

Water and ice provided to students must be obtained from an approved potable water source approved by the Department (for details refer to 9 A.A.C. 8, Article 2, or that complies with 18 A.A.C. 4; 18 A.A.C. 11, Articles 4 and 5, or A.R.S. § 45-811.01). Figure 1, Figure 2.

Things to know:

- Potable/Drinking water from an approved protected source shall be provided. Examples of unapproved water sources include boiler water, mop water, rain water, wastewater, irrigation water, reclaimed water, and any other nondrinking water.
- Ice can either be manufactured onsite using an NSF approved and properly located ice machine (i.e. protected from contamination) or purchased from an approved supplier. Figure 2.
- If using a hose/tube to fill, ensure that the water is from a potable water source, a food grade hose/tube is being used, and that there is appropriate backflow protection installed upstream. Figure 3, Figure 6.
- Ice machines manufacturing ice for hydration units shall be distinguished from ice machines used for other purposes (i.e. maintenance, training, and sports medicine).
- An air gap, such as a faucet fixture, is required for filling water drinking containers. Figure 1.

Recommendations:

- Outside filling stations are not recommended.
- It is recommended that the mechanism used to fill the bulk water drinking containers be easy to use, readily accessible, and allows for safe filling. Figure 1.
- It is strongly recommended that ice machines used for hydration be labeled with a sign stating “Ice is for human consumption only” and ice machines manufacturing ice for other purposes be labeled with a sign stating “Ice is not for human consumption”.

2. Equipment for dispensing water/ice

Common types of dispensing equipment include water bottles w/ lids, igloo coolers and portable hydration units (i.e. waterboys). Figure 4.

Things to know:

- Water and ice must be dispensed from equipment that protects from contamination, is durable, and is cleanable.
 - Refer to 2009 FDA Food Code for reference: 4-205.10, 4-201.11, and 4-202.11

- Any equipment used must prevent the contamination of the dispenser by eliminating contact with the student's mouth unless washed, rinsed, and sanitized after each use (**A.A.C. R9-8-706D**). Figure 9.
- The dispensing equipment must be protected from environmental contamination while in use (e.g. exposure to sprinklers, birds, animals, pesticides, herbicides, etc.). Figure 5.
- The equipment must also be able to be cleaned and sanitized either by utilizing an immersion method in an approved warewashing sink or through an approved manual in place cleaning procedure and properly air-dried. Figure 7.
- Ensure tubing/hoses are food-grade. Figure 6.
- Ice machines used in manufacturing ice for consumption must be certified to meet ANSI/NSF standard #12 or be certified by the National Automatic Merchandising Association (NAMA).

3. Cleaning & Sanitizing of Equipment (**A.A.C. R9-8-706C**)

All food contact equipment must be cleaned and sanitized as described in the 2009 FDA Food Code.

Equipment shall be clean to sight and touch. Equipment shall be cleaned:

- At any time when contamination may have occurred.
- At a frequency specified by the manufacturer or at a frequency to preclude accumulation of soil or mold.

Things to know:

- Hands shall be properly washed prior to cleaning and sanitizing equipment or filling containers. A dedicated hand sink shall be readily accessible for staff to use. This hand sink must be conveniently located, accessible, and equipped with hand soap and paper towels for use when cleaning and sanitizing equipment. Hot and cold water shall be provided to the hand washing sink. Figure 8.
- Warewashing sink requirements are dependent on the type of equipment that needs to be cleaned and sanitized.
 - A 3 compartment sink is strongly recommended for efficiently carrying out the wash, rinse, and sanitizing process. Figure 7
 - Sink compartments shall be large enough to accommodate immersion of the largest equipment, bottles, or utensils.
 - As an alternative to the 3 compartment sink, a 2 compartment sink may function for the operation; however, you shall contact the Department to have its use approved.
 - Approved manual warewashing requirements are described in regulations 4-301.12 & 4-603.15 of the 2009 FDA Food Code.
- When cleaning larger items (i.e. coolers), a CIP procedure (refer to 2009 FDA Food Code 4-202.12) may be more functional and shall meet the requirements:
 - Cleaning and sanitizing solutions shall contact all interior surfaces.
 - The system is self-draining or can be completely drained of cleaning and sanitizing solutions.
 - Any equipment that is not designed to be disassembled for cleaning shall be designed with inspection access points to ensure thorough cleaning.
 - Approved CIP requirements are described in regulations 4-202.12 of the 2009 FDA Food Code.
- Proper cleaning shall include washing, rinsing and sanitizing the equipment followed by air drying.
 - Washing can be accomplished with soap or other similar cleaning agents.
 - Once washed, equipment shall be rinsed to remove the soap/cleaning agent.
 - Sanitizing can be accomplished with a chemical sanitizer approved for use on food contact surfaces (i.e. chlorine, quaternary ammonium, iodine)
 - Concentration of the sanitizing solution shall be measured using a test kit or other device (check with manufacturer/label to determine proper concentration).
 - Air dry the equipment once washed, rinsed and sanitized, on a clean rack. Figure 10.

4. Storage of Equipment (A.A.C. R-9-8-706C2)

When the water and ice dispensing equipment (including hoses/tubing) is not in use, it must be stored in a clean area and in a manner that prevents contamination.

Things to know:

- Do **not** store any equipment (including ice machines for consumption) in any area where cross contamination may occur (i.e. training/sports medicine rooms, maintenance rooms where chemicals/pesticides are stored, grounds keeping rooms with dirty equipment/lawn mowers, under the bleachers, etc.)

Recommendations:

- Store the equipment in the same room where it is cleaned.
 - If a different room is used for storage, it is recommended that the room be constructed in a manner that prevents contamination of the clean equipment, protects from the entrance of vermin, is durable, and cleanable.

Figure 1 Approved Water Source

Approved Water Source



Water source - **Not** Approved



Figure 2 Approved Ice Machines



Figure 3 Backflow Protection (Hose Bib)



Figure 4 Hydration Equipment- Approved



Hydration Not Approved

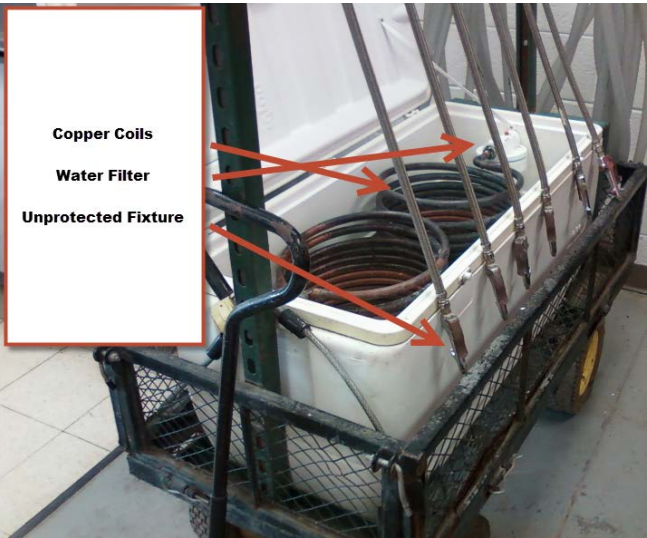


Figure 5 – Hydration System Protected from Sprinkler



Figure 6 – Food Grade Hose



Figure 7 – 3 Compartment Sinks



Figure 8 – Hand Washing Sink



Figure 9 – Water Dispenser Assembly on a Waterboy

Not Approved



Approved



Figure 10 - Storage of Equipment



Sample Standard Operating Procedure -- Cleaning & Sanitizing Water Bottles

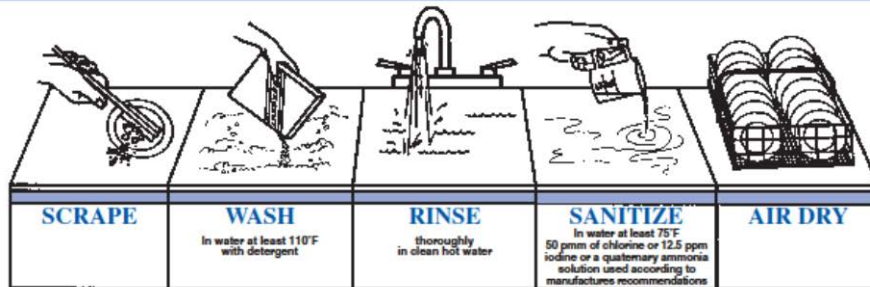


Why	Remove bacteria or viruses that may cause food borne illness from water bottles.
Who	<i>(Note: designate employees responsible)</i>
When	<ul style="list-style-type: none"> • When water bottles have been used. • When water bottles have been sitting unused for a period of time. • Any time when contamination may have occurred.
Where	Cafeteria
How	<ul style="list-style-type: none"> • Wash, rinse and sanitize <ul style="list-style-type: none"> • In a 3 compartment sink or dishwasher • Use test strips to check sanitizer concentration <ul style="list-style-type: none"> • Use chlorine chemical sanitizer that is approved for use on food contact surfaces. <ul style="list-style-type: none"> ○ Chlorine – 50ppm in water at least 75°F • Air dry the water bottles on a clean rack
Optional Records	Cleaning & Sanitizing Checklist/Schedule
Correction	<ul style="list-style-type: none"> • If bottles are found to not be clean, then re-clean and sanitize • Re-train staff in proper cleaning procedures
PIC Verification	<ul style="list-style-type: none"> • Verify that water bottles are clean and sanitized. • Observe employee cleaning and sanitizing practices. • Check that dishwasher equipment is properly operated and maintained. • Use proper test kit/strips to verify sanitizer concentration.



Maricopa County
Environmental Services
Department

HAND DISHWASHING METHOD



Change water often. Utensils cannot be sanitized unless they are properly cleaned.




This SOP should serve as a resource to assist in developing a plan. There may be better suited options depending on each individual situation. Please contact the Department if you would like assistance in developing your SOP or if you have questions.

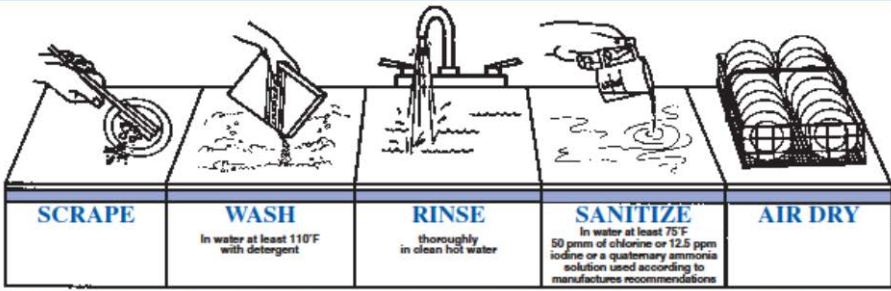
Sample --- Standard Operating Procedure --- Cleaning & Sanitizing Coolers



Why	Remove bacteria or viruses that may cause food borne illness from coolers.
Who	<i>(Note: designate employees responsible)</i>
When	<ul style="list-style-type: none"> • When coolers have been sitting unused for a period of time. • Any time when contamination may have occurred.
Where	Cafeteria
How	<ul style="list-style-type: none"> • Wash, rinse and sanitize cooler, lid, and spigot • In a 3 compartment sink or through an approved 3 step washing, rinsing, and sanitizing procedure for clean in place equipment. • Use test strips to check sanitizer concentration • Use chlorine chemical sanitizer that is approved for use on food contact surfaces. <ul style="list-style-type: none"> ○ Chlorine – 50ppm in water at least 75°F • Air dry the coolers on a clean rack
Optional Records	Cleaning & Sanitizing Checklist/Schedule
Correction	<ul style="list-style-type: none"> • If coolers are found to not be clean, then re-clean and sanitize • Re-train staff in proper cleaning procedures
PIC Verification	<ul style="list-style-type: none"> • Verify that coolers are clean and sanitized. • Observe employee cleaning and sanitizing practices. • Use proper test kit/strips to verify sanitizer concentration.


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HAND DISHWASHING METHOD



Change water often. Utensils cannot be sanitized unless they are properly cleaned.

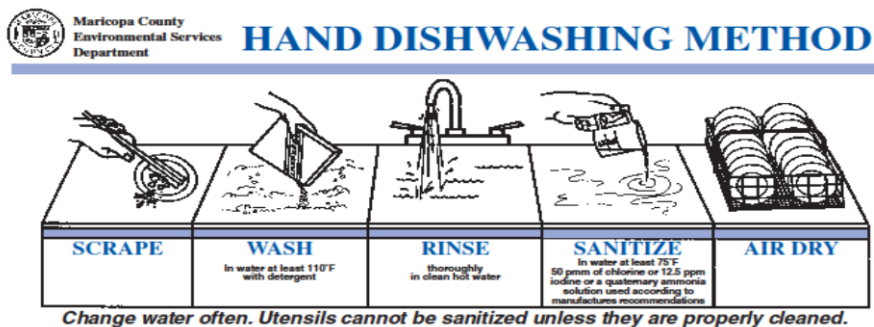


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Sample --- Standard Operating Procedure --- Cleaning & Sanitizing Water Hydration Unit (e.g. Waterboy)



Why	Remove bacteria or viruses that may cause food borne illness from water hydration unit.
Who	<i>(Note: designate employees responsible)</i>
When	<ul style="list-style-type: none"> • When water hydration unit has been sitting unused for a period of time. • Any time when contamination may have occurred.
Where	Cafeteria
How	<ul style="list-style-type: none"> • Flush and sanitize tank and hoses/tubing. <ul style="list-style-type: none"> ○ Drain out any remaining liquid by opening outlet valves. ○ Fill tank with water. ○ Add chlorine chemical sanitizer (50ppm in water at least 75°F; approx. 1 tablespoon chlorine/gallon water). ○ Leave overnight. ○ Rinse tank thoroughly with potable water. ○ Drain tank into sanitary sewer. • In a 3 compartment sink wash, rinse, and sanitize mouth guard. <ul style="list-style-type: none"> ○ Use test strips to check sanitizer concentration. ○ Use chlorine chemical sanitizer that is approved for use on food contact surfaces. Chlorine – 50ppm in water at least 75°F • Air dry all parts.
Optional Records	Cleaning & Sanitizing Checklist/Schedule
Correction	<ul style="list-style-type: none"> • If water hydration units are found to not be clean, then re-clean and sanitize • Re-train staff in proper cleaning procedures
PIC Verification	<ul style="list-style-type: none"> • Verify that water hydration units are clean and sanitized. • Observe employee cleaning and sanitizing practices. • Use proper test kit/strips to verify sanitizer concentration.



This SOP should serve as a resource to assist in developing a plan. There may be better suited options depending on each individual situation. Please contact the Department if you would like assistance in developing your SOP or if you have questions.