

## **JANITORIAL FACILITIES / BACKFLOW PREVENTION / HOT WATER SUPPLY**

Each food establishment must be provided with at least one of the following to be used exclusively for general cleaning purposes and the disposal of mop bucket and other cleaning waste:

- One-compartment nonporous janitorial sink.
- A curbed area (basin) that is properly sloped to a drain. All curbed surfaces are to be of smooth, durable, nonporous, and easily cleanable construction. Where rubber floor mats are used a curbed janitorial area is required.

Other requirements include:

- Janitorial sinks or curbed areas must be supplied with hot and cold running water through a pre-mixing faucet. An approved method of backflow prevention is required on the faucet (atmospheric vacuum breaker).
- Janitorial facilities must be large enough to accommodate all cleaning supplies and equipment. These items are to be stored here and not in restrooms, food storage or preparation areas, utensil washing or storage areas, or employee change/storage areas.
- Janitorial facilities must be separate from food and utensil areas. If a janitorial sink or curbed area is located in a food or utensil area, it must be separated by an approved moisture-resistant partition (or wall) at least 5 feet in height.
- Establishments washing floor mats must have facilities to clean the mats and drain the wastewater to the sanitary sewer system.
- Janitorial sinks or curbed areas are not to be used for hand washing, utensil washing, food preparation, or any other unapproved purpose.
- Warehouses where ceilings are greater than 10 feet will not require a ceiling over the janitorial room.

Due to the characteristic use of janitorial facilities, it is recommended that care be given to providing well-ventilated areas and selecting extremely durable finish materials for the floor and walls. These should be chosen to withstand repeated moisture and impacts, in addition to being easily cleanable.

## **BACKFLOW PREVENTION**

General requirements for backflow prevention include:

- An approved backflow prevention device is to be provided upstream of any potential hazard to the potable water supply. This includes threaded water outlets, hose bibs, janitorial sinks, dishwashers, sprayers, etc.

- Chemical feeders connected to the potable water supply must be protected against backflow and back-siphonage.

## **HOT WATER SUPPLY**

A water heater must be provided, capable of consistently supplying hot water (at least 120°F) to all sinks, lavatories, dishwashing machines, etc. In sizing the heater, the peak hour demands for all fixtures are added together to determine the minimum recovery rate necessary. For situations where the water heater is located more than 60 feet from a fixture to be served, a re-circulation pump must be provided to insure that water of adequate temperature can be rapidly provided (on demand). Other requirements include:

- Use the [Calculating Hot Water Demand](#) check sheet for sizing water heaters.
- Electric water heaters with more than one heating element must be sized based on the use of simultaneous heating elements.
- When multiple water heaters are connected, they must be connected in parallel, not in series.
- A minimum 10-gallon water heater is required for establishments handling/selling only prepackaged food items.
- If located inside the establishment, the water heater must be placed on approved legs at least 6-inches high or a minimum 4-inch high integrally covered platform.
- The water heater must be capable of heating water to 140°F if a high temperature dish machine with a 40°F booster heater is used.
- Shared water heaters are not allowed.



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**HOT WATER DEMAND**

FACILITY NAME:	
ADDRESS:	DATE:

Fixtures	No. Units	Length (in)	Width (in)	Length (ft)	Width (ft)	GPH	No. Compartments	equals	Total GPH
Utensil / 3-Compartment Sinks									
Mop Sinks									
Dump Sinks									
Outdoor Trash Area									
Hand Sinks									
Food Preparation Sinks									
Hand-spray / Pre-rinse Units									
Employee Shower									
Clothes Washer									
Automatic Utensil Washing Machine*									
Additional Utensil / 3-Compartment Sinks									
<b>Total GPH (gallons per hour)</b>									

**Sizing Requirements for Storage Water Heaters (Not Instantaneous Water Heaters):**

Facilities with multi-service eating utensils, heavy use (serving 3 meals a day)	100% GPH required
Facilities with multi-service eating utensils, moderated use	90% GPH required
Facilities with single service eating utensils or don't use utensils at all	80% GPH required

\_\_\_\_\_ Total GPH x \_\_\_\_\_ % (see sizing requirements above) \_\_\_\_\_ GPH required

**Computing the BTU input (Gas Water Heaters):**

\_\_\_\_\_ GPH required x 60° Rise x 11 = \_\_\_\_\_ BTU input of water heater

\_\_\_\_\_ GPH required x 80° Rise x 11 = \_\_\_\_\_ BTU input of water heater  
 (if a 180° rinse automatic utensil washing machine with a 40° rise booster is used)

**Formula for Electric Water Heaters:**

\_\_\_\_\_ GPH required x (.149) = \_\_\_\_\_ KW input required  
 (60° rise)

\_\_\_\_\_ GPH required x (.2) = \_\_\_\_\_ KW input  
 (80° rise, if a 180° rinse automatic utensil washing machine with a 40° rise booster is used)

\*NSF International or other nationally recognized testing laboratories are used to determine the minimum GPH hot water demand required for automatic utensil washing machines. The Hot Water Demand Calculator is available on [www.cchealth.org/eh](http://www.cchealth.org/eh)

## HOURLY HOT WATER DEMAND TABLE

### Utensil Sinks

- 18" x 18" 14 gallons per compartment
- 24" x 24" 25 gallons per compartment
- Others Calculate based on compartment use

Custom sink sizes can be calculated using the following formula:

$$\text{Length (ft.) X Width (ft.) X Depth (ft.) X 7.5 = gallons per compartment}$$

**Bar Sinks** 6 gallons per compartment

**Hand Sinks** 5 gallons per sink

### Dishwashing Pre-rinse Units

- Hand spray type 45 gallons
- Others refer to manufacturer's specifications

**Dishwashers** refer to manufacturer's specifications

**Food Preparation Sinks** 5 gallons per sink

### Clothes Washers

- 9 – 12 lb. washers 45 gallons
- 16 lb. washers 60 gallons
- Others refer to manufacturer's specifications

**Employee Shower** 20 gallons per shower

**Janitorial Sinks / Garbage Can Wash Facilities** 15 gallons per sink

**Other Fixtures** refer to manufacturer's specifications

### Instantaneous Water Heaters:

Instantaneous water heaters are not acceptable for use as the source of hot water for handsinks. Instantaneous water heaters for an entire facility must be sized to provide hot water of at least 120F at a rate of at least 2 gpm to each sink (except hand sinks and food preparation sinks must receive at least ½ gpm). NSF listings are used to determine the minimum GPM hot water demand for automatic dishwashers. Use 100% of the calculated gallons per hour hot water demand.

For additional information on sizing and installation of water heaters see Guidelines for Sizing Water Heaters available on the CCDEH website: <http://www.ccdeh.com/commttee/food/documents/>



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**HOT WATER DEMAND FOR TANKLESS / INSTANTANEOUS WATER HEATERS**

FACILITY NAME:	
ADDRESS:	DATE:

FIXTURE SERVED	NO. UNITS		GPM		TOTAL GPM
Utensil / 3-Compartment Sinks		X	2	=	
Mop Sinks		X	2	=	
Outdoor Trash Area		X	2	=	
Hand Sinks		X	0.5	=	
Food Preparation Sinks		X	0.5	=	
Hand Spray / Pre-rinse Units		X	2	=	
Employee Shower		X	2	=	
Clothes Washer		X	2	=	
Automatic Utensil Washing Machine*		X		=	
<b>TOTAL GPM (gallons per minute)</b>				=	
<b>TOTAL GPH (gallons per hour) (Total GPM x 60)</b>				=	

**Computing the BTU input (Gas Water Heaters):**

\_\_\_\_\_ GPH required x 60° Rise x 11 = \_\_\_\_\_ BTU input of water heater

\_\_\_\_\_ GPH required x 80° Rise x 11 = \_\_\_\_\_ BTU input of water heater  
 (if a 180° rinse automatic utensil washing machine with a 40° rise booster is used)

**Formula for Electric Water Heaters:**

\_\_\_\_\_ GPH required x (.149) = \_\_\_\_\_ KW input required  
 (60° rise)

\_\_\_\_\_ GPH required x (.2) = \_\_\_\_\_ KW input  
 (80° rise, if a 180° rinse automatic utensil washing machine with a 40° rise booster is used)

\*NSF International or other nationally recognized testing laboratories are used to determine the minimum GPM hot water demand required for automatic utensil washing machines.

Hot Water Demand for Tankless / Instantaneous Water Heaters Calculator is available on [www.cchealth.org/eh](http://www.cchealth.org/eh)