(Insert Facility Name Here)
Emergency Water Policy

SAMPLE POLICY/PROCEDURE FOR SKILLED NURSING FACILITIES

(ADAPTED FROM THE CALIFORNIA ASSOCIATION OF HEALTH FACILITIES' SNF EOP TEMPLATE APPENDIX R - DISASTER WATER SUPPLIES)

To ensure safe water for residents, staff and visitors during a crisis, our facility maintains:

- An emergency water supply that is suitable and accessible;
- An emergency water supply consistent with applicable regulatory requirements; and
- Methods for water treatment and/or resupply when supplies are low.

Resource	Quantity	Location
Emergency water supply (minimum three-day supply)		
Emergency water supply which exceeds minimum three-day supply (five to seven-day supply preferred)		
Logistics, equipment and containers available to transport water supplies during evacuation		
Equipment to boil large volumes of water (adequate supply of large pots, commercial cooking kettles, etc.)		
Empty containers to store and transport boiled water (buckets, jugs, etc.)		
Water purification products (type used)		
On-site water storage (boilers, hot water tanks, ice makers)		

Water Treatment Methods

(adapted from the Federal Emergency Management Agency [FEMA] Fact Sheet)

We treat all water of uncertain quality before using it for drinking, food washing or preparation, washing dishes, brushing teeth, or making ice. In addition to having a bad odor and taste, contaminated water can contain microorganisms (germs) that cause diseases such as dysentery, cholera, typhoid or hepatitis. If there is a suspected compromise of the water system (i.e. broken pipes) our facility will shut off the water supply as soon as possible to protect the integrity of supply in internal tanks and pipes.

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Before treating, we will let any suspended particles settle to the bottom or strain them through coffee filters or layers of clean cloth.

We have the necessary materials in our disaster supplies kit for the chosen water treatment method as described below:

There are <u>two water treatment</u> methods. They are as follows:

These instructions are for treating water of uncertain quality in an emergency situation, when no other reliable clean water source is available, or we have used all of the stored water.

Boiling

Boiling is the safest method of treating water. In a large pot or kettle, bring water to a rolling boil for 1 full minute, keeping in mind that some water will evaporate. Let the water cool before drinking.

Boiled water will taste better if oxygen is put back into it by pouring the water back and forth between two clean containers. This also will improve the taste of stored water.

Chlorination

We use household liquid bleach to kill microorganisms. Only regular household liquid bleach that contains 5.25 to 6.0 percent sodium hypochlorite is used. We do not use scented bleaches, color safe bleaches, or bleaches with added cleaners. Because the potency of bleach diminishes with time, we use bleach from a newly opened or unopened bottle.

We will add 16 drops (1/8 teaspoon) of bleach per gallon of water, stir, and let stand for 30 minutes. The water should have a slight bleach odor. If it doesn't, then repeat the dosage and let stand another 15 minutes. If it still does not smell of chlorine, we will discard it and find another source of water.

<u>SAFE SOURCES OF POTABLE WATER</u>

1. Melted ice cubes
2. Water drained from the water heater (if the intake pipes and/or water heater have not been damaged)
3. Liquids from canned goods such as fruit or vegetable juices
4. Water drained from pipes if deemed to be uncontaminated
5. Other: (i.e.) well water, water storage tanks, bottled water, canned water, etc.

SUPPLIERS

Municipal Water Company:

_____ _____

Name Emergency Contact Number

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Water Vendor:

_____ _____

Name Emergency Contact Number

SPECIAL NOTE: RESIDENT HYDRATION DURING EVACUATION

During evacuation, bottled water and/or necessary liquid thickeners for those individuals with swallowing restrictions will accompany residents and staff to maintain safe hydration levels.

STORAGE

Manufacturer's guidelines for water storage method will be followed for water storage tanks, drums, or containers.

- Name of Manufacturer:
  _____
- Guidelines for use:
  _____
- Location (ie: outside, storage room, etc.):
  _____
- Surface Preparation (concrete, pallet, etc.):
  _____
- Protection (covered, UV light safe, etc.):
  _____
- Additional equipment (pump, spigot, hose):
  _____

Facility will follow manufacturer's guidelines for filling water storage units and preserving water, including:

- Cleaning prior to filling:
  _____
- Source of water to fill:
  _____

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- How to fill:
  _____
- Adding water preserver:
  _____
- Type and amount of preserver:
  _____
- Length of time water may be used after adding preserver per manufacturer guidelines:
  _____
- How to seal water storage device:
  _____
- Other equipment/procedures required for this water storage device:
  _____
- Facility will maintain a routine inspection of the water storage based on manufacturer's recommended frequency _____ and will check for cracks in container, leaks, broken seals, etc. and maintain documentation of quality checks.
- Facility will discard any water stored that has become compromised or outdated.

DISTRIBUTION TO POINT OF CARE

When necessary, this facility will use food grade hose and containers to move water supplies to the point of care for residents.

- A food-grade (FDA approved) drinking water hose will be used to fill water containers from the water storage tank and to distribute water in an emergency.
- Water will be transported in food-grade (FDA approved) emergency water containers.
- The hose and containers are stored together in this location: _____

PROTECTION OF EMERGENCY WATER SUPPLIES

When instructed or advised by local authorities that there is risk of contamination to our water supply due to broken pipes, we will shut off the incoming water to the facility to preserve the existing internal supply.

- Key staff on every shift are trained on how and when to shut off the water to the facility.

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- The location of the main water valve is: _____
- Key staff on every shift are trained to access water from the hot water heater, toilet tanks, ice maker, and uncontaminated water in the pipes if necessary.
- During a water emergency, one or more staff will be assigned to monitor the emergency water usage and supply to minimize waste and ensure the supply lasts as projected.
- In the event that the water in the pipes is considered unsafe, sinks and water fountains will be shut off and signs placed to warn that the water is not usable.

Emergency Water Checklist for Long Term Care Facilities

Develop Policy Language		
Date Completed	Date Reviewed	
		Develop policy & procedure to use in the facility that reflects the Hazards Vulnerability Assessment (HVA).

Amounts Needed		
Date Completed	Date Reviewed	
		Determine the amount of water to store for emergencies to include the total bed capacity and additional amounts for staff, visitors and predicted surge or emergency influx of admissions.
		The quantity of water needed for each individual is not described in the regulations but community standards have been established as follows: • American Red Cross, CDC and FEMA all suggest at least one gallon per person per day for 3 days. This allows two quarts for drinking water and beverages and two quarts for food preparation per person per day. • The nursing department may want to designate a specific amount of water for nursing procedures, such as enteral feeding flushes, sterile dressing uses, or any other nursing procedure needing bottled or distilled water.
		Evaluate essential water needs for environmental cleaning, flushing of toilets, and other critical activities that may require water but could utilize non-potable sources or be met by some alternate plan that does not require water (i.e. environmental wipes, paper supplies for meals, portable toilets).
		Consider a strategy to monitor water use during an incident to avoid waste and ensure the supply lasts for projected duration, when calculating the minimum amount of water needed on hand for emergencies.

Emergency Water Checklist for Long Term Care Facilities

Sources		
Date Completed	Date Reviewed	
		Bottled water and large storage containers may be included in the emergency supply inventory.
		Consider include ice machines, hot water storage tanks, boilers, toilet storage tanks (not bowls) may be an additional source of safe water to meet total needs of facility.
		Have a plan to communicate with local emergency management and the water company about the situation and to request assistance for your facility.
		Find out how the local authorities advise on how they will alert the community when they identify an anticipated disruption, as well as send recommendations on purification methods and testing.

Storage and Rotation		
Date Completed	Date Reviewed	
		Follow water storage direction provided by manufacturer of the storage container, as well as guidance from local and state health departments.
		Store bottled or distilled water for emergency purposes, and label “FOR EMERGENCY USE ONLY”. Commercially prepared bottled water is recommended.
		If used, keep the water in its original sealed container and stored in a cool, dry area away from heat sources.
		Replace the water per manufacturer directions. Once opened, use it and do not store it further.
		An agreement from a local bottled water company or supplier to provide bottled water in emergencies may be part of the facility disaster plan.

Emergency Water Checklist for Long Term Care Facilities

Storage and Rotation - Continued		
Date Completed	Date Reviewed	
		If possible a new tank should be used because used tanks that have contained chemicals can have harmful residue.
		Clean and disinfect all tanks before and after use. Ensure the tanks meet the NSF/ANSI Standard 61 for potable water use.
		Carefully consider the location and weight of the filled storage tank/container, for overall planning purposes.
		A siphon or pump can be used to dispense water from the container. Food grade tubing must be used for siphoning.
		Follow manufacturer guidelines in terms of location, protection for elements, testing, purifying or preserving and rotation of water.
		Check stored water regularly to ensure inventory and integrity of the supplies.
		Instruct staff not to use the emergency water supply for any purpose other than an emergency situation.

Distribution to Point of Care		
Date Completed	Date Reviewed	
		Should an emergency occur, dispense water from storage containers following manufacturer guidelines.
		A food-grade (FDA approved) drinking water hose should be used to fill water containers from the water storage tank and to distribute water in an emergency.
		Transport water in food-grade (FDA approved) emergency water containers.
		Ensure the emergency water supplies, and the hose and containers are accessible 24 hours a day and every day of the week, and that staff know the location of these supplies.

Emergency Water Checklist for Long Term Care Facilities

Testing and Purification		
Date Completed	Date Reviewed	
		Protect the water sources already in the facility from contamination if there are reports of broken water or sewage lines or if local officials advise conservation of clean water. • To shut off incoming water, locate the main valve and turn it to the closed position. • Be sure key staff members know beforehand how to perform this important procedure.
		To use the water in the pipes, let air into the plumbing by turning on the faucet in the facility at the highest level. A small amount of water will trickle out. Then obtain water from the lowest faucet in the facility.
		To use the water in the hot-water tank, be sure the electricity or gas is off. • Open the drain at the bottom of the tank. • Start the water flowing by turning off the water intake valve at the tank and turning on a hot-water faucet. • Refill the tank before turning the power back on, or call a professional to turn the gas back on.
		Treat all water of uncertain quality before using it for drinking, food preparation, or hygiene.
		Before treating, let any suspended particles settle to the bottom, or strain them through layers of paper towel, clean cloth, or coffee filter.
		Boiling is the surest method to kill disease-causing organisms, including viruses, bacteria, and parasites. • If the water is cloudy, filter it through a clean cloth, paper towel, or coffee filter OR allow it to settle. Then follow boiling guidelines. • Bring the clear water to a rolling boil for one minute (at elevations above 6,500 feet, boil for three minutes).

Emergency Water Checklist for Long Term Care Facilities

Testing and Purification - Continued		
Date Completed	Date Reviewed	
		Small quantities of filtered and settled water can be made safer to drink by using a chemical disinfectant such as unscented household chlorine bleach. • Use only regular household liquid bleach that contains 5.25 to 6.0 percent sodium hypochlorite. Do not use scented bleaches, colorsafe bleaches, or bleaches with added cleaners. • Because the potency of bleach diminishes with time, use bleach from a newly opened or unopened bottle. Add 16 drops (1/8 teaspoon) of bleach per gallon of water, stir and let stand for 30 minutes. The water should have a slight bleach odor. • If it doesn't, then repeat the dosage and let stand another 15 minutes. If it still does not smell of bleach, discard it and find another source of water.
		Iodine or water treatment products (sold in camping or surplus stores) are **not** recommended. Follow the manufacturer's instructions on the label or in the package. • Iodine and iodine-containing tablets (tetraglycine hydroperiodide) or chlorine tablets are **not** effective against *Cryptosporidium*. • Important: Water that has been disinfected with iodine is NOT recommended for pregnant women, people with thyroid problems, those with known hypersensitivity to iodine, or continuous use for more than a few weeks at a time.
		Chlorine dioxide tablets can be effective against *Cryptosporidium* if the manufacturer's instructions are followed correctly. Follow the manufacturer's instructions on the label or in the package.
		If water in pipes is suspected to be unsafe, have a plan to restrict access to that water source.

Emergency Water Checklist for Long Term Care Facilities

Resupply Plan/Agreement		
Date Completed	Date Reviewed	
		Have a plan for the facility and systems to connect to alternate water sources to support sprinkler system, waste water, and cooling systems.
		Be ready to communicate with local emergency management and the water company about the situation, and to request assistance for the facility.
		The facility should make arrangements/agreements with local water companies (public and/or private) to acquire water in case of an emergency to meet the facility's needs.

Portable Supply for Evacuation		
Date Completed	Date Reviewed	
		The facility's stored water supplies should be easily portable so that supplies can be available to residents and staff along the way in the event of an evacuation.
		The amount and container type for transport should be determined by the facility based on an assessment of the location, all-hazards analysis & individual characteristics of the facility and the population it serves.