

## "How to" for Businesses under a Boil Water Advisory

### Hospitals and Clinics

#### During a boil water advisory:

- Patients and employees should not consume water that has not been disinfected, ice or drinks made with water that has not been disinfected, or raw foods rinsed with water that has not been disinfected.
- Disinfect water of *Cryptosporidium* by
  - boiling at a rolling boil for 1 minute
  - distilling
  - filtering through a reverse osmosis filter, an “absolute 1 micron” filter or a filter certified to remove *Cryptosporidium* under NSF International Standard #53 for either “cyst removal” or “cyst reduction.” Ultraviolet light treatment of water is *not* effective against *Cryptosporidium*, at normally used levels.
- All employees with diarrheal illness should be regulated by standard rules of exclusion from work.
- Disinfect dishes by washing in dishwashing machines that have a dry cycle or a final rinse that exceeds 113 degrees F for 20 minutes or 122 degrees F for 5 minutes or 162 degrees F for 1 minute.

#### Upon rescinding of a boil water advisory:

- Re-start and flush any water-using fixture or piece of equipment in accordance with the manufacturer’s specifications. This may vary from fixture to fixture. Consult your facilities engineer and/or the manufacturer when re-starting the equipment.
- Managers of large buildings with water-holding reservoirs should consult with their facility engineer and health department about draining the reservoir.
- Run cold water faucets for 1 minute before using the water.
- Run drinking fountains for 1 minute before using the water.
- Backwash pool filters and change media or water.
- Run water softeners through a regeneration cycle.
- Drain and refill hot water heaters set below 113 degrees F.
- Resume usual bathing practices and care for patients with breaks in the skin.

### Renal Dialysis Units

#### During a boil water advisory:

- Patients and employees should not consume water that has not been disinfected, ice or drinks made with water that has not been disinfected, or raw foods rinsed with water that has not been disinfected.
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  - boiling at a rolling boil for 1 minute
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  - filtering through a reverse osmosis filter, an “absolute 1 micron” filter or a filter certified to remove *Cryptosporidium* under NSF International Standard #53 for either “cyst removal” or “cyst reduction.” Ultraviolet light treatment of water is

*not* effective against *Cryptosporidium*, at normally used levels.

- All employees with diarrheal illness should be regulated by standard rules of exclusion from work.
- Disinfect dishes by washing in dishwashing machines that have a dry cycle or a final rinse that exceeds 113 degrees F for 20 minutes or 122 degrees F for 5 minutes or 162 degrees F for 1 minute.
- Use only disinfected water to treat skin wounds.
- Monitor patients closely for signs and symptoms of gastrointestinal illness.

If your water system is treating water chemically beyond normal levels advise dialysis units to :

- Sample water for chemical analysis to ensure compliance with AAMI standards.
- Conduct chlorine/chloramine tests to ensure compliance with AAMI standards.
- Monitor water system gauges once per shift.

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- Run drinking fountains for 1 minute before using the water.
- Backwash pool filters and change media or water.
- Run water softeners through a regeneration cycle.
- Drain and refill hot water heaters set below 113 degrees F.
- Resume usual bathing practices and care for patients with breaks in the skin.

## **Nursing Homes**

During a boil water advisory:

- Residents and employees should not consume water that has not been disinfected, ice or drinks made with water that has not been disinfected, or raw foods rinsed with water that has not been disinfected.
- Disinfect water of *Cryptosporidium* by
  - boiling at a rolling boil for 1 minute
  - distilling
  - filtering through a reverse osmosis filter, an "absolute 1 micron" filter or a filter certified to remove *Cryptosporidium* under NSF International Standard #53 for either "cyst removal" or "cyst reduction." Ultraviolet light treatment of water is *not* effective against *Cryptosporidium*, at normally used levels.
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- Run drinking fountains for 1 minute before using the water.
- Backwash pool filters and change media or water.
- Run water softeners through a regeneration cycle.
- Drain and refill hot water heaters set below 113 degrees F.
- Resume usual bathing practices and care for residents with breaks in the skin.

**Day-care Facilities**

During a boil water advisory:

- Children and employees should not consume water that has not been disinfected, ice or drinks made with water that has not been disinfected, or raw foods rinsed with water that has not been disinfected.
- Disinfect water of *Cryptosporidium* by
  - boiling at a rolling boil for 1 minute
  - distilling
  - filtering through a reverse osmosis filter, an "absolute 1 micron" filter or a filter certified to remove *Cryptosporidium* under NSF International Standard #53 for either "cyst removal" or "cyst reduction." Ultraviolet light treatment of water is *not* effective against *Cryptosporidium*, at normally used levels.
- All employees with diarrheal illness should be regulated by standard rules of exclusion from work.
- Disinfect dishes by washing in dishwashing machines that have a dry cycle or a final rinse that exceeds 113 degrees F for 20 minutes or 122 degrees F for 5 minutes or 162 degrees F for 1 minute.

Upon rescinding of a boil water advisory:

- Re-start and flush any water-using fixture or piece of equipment in accordance with the manufacturer's specifications. This may vary from fixture to fixture. Consult your facilities engineer and/or the manufacturer when re-starting the equipment.
- Managers of large buildings with water-holding reservoirs should consult with their facility engineer and health department about draining the reservoir.
- Run cold water faucets for 1 minute before using the water.
- Run drinking fountains for 1 minute before using the water.
- Backwash pool filters and change media or water.
- Run water softeners through a regeneration cycle.
- Drain and refill hot water heaters set below 113 degrees F.

## **Prevention and Control of Cryptosporidiosis in Day-care Facilities**

### Effective measures include:

- frequent hand washing, by both staff and children;
- clear separation of diapering and food-handling areas and responsibilities;
- the use of overclothes or diapers capable of retaining liquid feces;
- disinfection of diaper areas and toys;
- excluding children with diarrhea;
- use of disposable gloves when changing diapers;
- use of disposable paper to cover diaper-changing areas;
- separation of diaper-changing areas from children's play areas.

No disinfectant is guaranteed to be completely effective against *Cryptosporidium*. However, hydrogen peroxide (3%) is usually effective. Ammonia can also be used but it has a strong odor and, if accidentally mixed with bleach or other chlorine-containing solutions, produces hazardous chlorine gas.

In the event of an outbreak, to reduce the level of potentially infectious *Cryptosporidium*, clean and disinfect toys, table tops and high chairs more frequently than usual (at least twice daily). Dishwasher-safe toys may be washed in a commercial dishwasher that has a dry cycle or a final rinse that exceeds 113 degrees F for 20 minutes or 122 degrees F for 5 minutes or 162 degrees F for 1 minute. Cloth toys may be washed and heat-dried in a clothes dryer for 30 minutes.

If there is an increase of diarrhea, parents should be informed of the symptoms of cryptosporidiosis, how it is transmitted, the risk of severe illness in immunocompromised persons and necessary control measures.

## **Dental Offices**

### During a boil water advisory:

- Reschedule appointments for immunocompromised patients, such as HIV-positive individuals, chemotherapy and transplant patients, and congenitally immunocompromised individuals.
- Warn your patients before treatment that they are at greater risk for cryptosporidiosis if they are immunocompromised, and that they may wish to reschedule their treatment after the boil water advisory is lifted. Explain to all patients the current situation regarding water and indicate what procedures your office is following to protect their health.
- Patients and employees should not consume water that has not been disinfected or ice or drinks made from water that has not been disinfected.
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  - distilling
  - filtering through a reverse osmosis filter, an "absolute 1 micron" filter or a filter certified to remove *Cryptosporidium* under NSF International Standard #53 for either "cyst removal" or "cyst reduction." Ultraviolet light treatment of water is *not* effective against *Cryptosporidium*, at normally used levels.

- All employees with diarrheal illness should be regulated by standard rules of exclusion from work.
- Turn off the water supply to high-speed handpieces. Using disinfected water, flow water out of a bulb syringe when using high-speed handpieces.

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- Managers of large buildings with water-holding reservoirs should consult with their facility engineer and health department about draining the reservoir.
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- Run drinking fountains for 1 minute before using the water.

**Commercial Establishments (Restaurants, Hotels, Convenience Stores etc.)**

During a boil water advisory:

- Do not serve or consume water that has not been disinfected, ice or drinks made with water that has not been disinfected, or raw foods rinsed with water that has not been disinfected.
- Disinfect water of *Cryptosporidium* by
  - boiling at a rolling boil for 1 minute
  - distilling
  - filtering through a reverse osmosis filter, an "absolute 1 micron" filter or a filter certified to remove *Cryptosporidium* under NSF International Standard #53 for either "cyst removal" or "cyst reduction." Ultraviolet light treatment of water is *not* effective against *Cryptosporidium*, at normally used levels.
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**Commercial Ice Maker Users**

Upon rescinding of a boil water advisory:

- A. Flush the water line to the machine inlet:
1. Close the valve on the water line behind the machine and disconnect the water line from the machine inlet.
  2. Open the valve, run 5 gallons of water through the valve and dispose of the water.
  3. Close the valve.
  4. Reconnect the water line to the machine inlet.
  5. Open the valve.
- B. Flush the water lines in the machine:
1. Turn on the machine.
  2. Make ice for 1 hour and dispose of the ice.
- C. Clean and disinfect all parts and surfaces that come in contact with water and ice, following the manufacturer's instructions.

### **Public Users of Public Water Supplies**

#### During a boil water advisory:

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  - boiling at a rolling boil for 1 minute
  - distilling
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#### Upon rescinding of a boil water advisory:

- Flush household pipes/faucets: run *all* cold water faucets for 3 minutes each.
- Flush home automatic ice makers: make three batches of ice cubes and discard all three batches.
- Run water softeners through a regeneration cycle.
- Flush drinking fountains: run continuously for 1 minute.
- Flush water coolers: run coolers with direct water connections for 5 minutes.