

# 3Ts for Reducing Lead in Drinking Water

in **Child Care Facilities:**  
**Revised Guidance**



# Why Read this Guide?

This booklet is designed for small child care facilities to help them ensure the drinking water in their buildings does not contain elevated levels of lead. This guide uses the 3Ts (training, testing, telling) to assist you with the steps needed to reduce children's exposure to lead in drinking water.

- ▶ **Training:** information about health effects and sources of lead
- ▶ **Testing:** simple instructions for testing water and recommended solutions for fixing a lead problem if one is identified
- ▶ **Telling:** sharing information with parents and staff

If you own or direct a large child care facility you should obtain a copy of *3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance*. This guide can be downloaded at [www.epa.gov/safewater/schools](http://www.epa.gov/safewater/schools) or ordered by calling the Safe Drinking Water Hotline at 1-800-426-4791.



## Lead and Children's Health

Lead exposure is a serious health concern, especially for young children and infants. Children's bodies absorb more of the lead they are exposed to than do adults. For infants and children, exposure to high levels of lead may result in delays in physical or mental development, lower IQ levels, and even brain damage. Because children spend so much time in child care facilities and lead exposure is a serious health risk for children, these facilities need to know if their drinking water is safe. Learn more about the health effects of lead on page 4 of this Guide.

## Lead in Drinking Water

Drinking water is one possible source of lead exposure. Some drinking water pipes, taps, solder, and other plumbing components contain lead. Lead in the plumbing can leach into water, putting children at risk. Other possible sources of lead exposure include paint, dust, soil and dirt, and pottery. Drinking water is not usually a major source of lead but facilities that serve young children should test their water to make sure it is safe. Read more about how lead gets into drinking water on page 5.

## Testing for Lead

Testing water in child care facilities is important because children spend a lot of time in these facilities, and are very likely to consume water while there. Even though water delivered from the community's public water supply must meet federal and state standards for lead, the building plumbing may contribute to elevated lead levels in the drinking water. Testing the water at each outlet is the only sure way to find out if the water contains too much lead. Follow the instructions on page 8 to test the drinking water in your facility.

## Finding Help

You may be able to find help in your efforts to ensure the drinking water in your facility does not contain elevated levels of lead.

- ▶ Contact your local drinking water supplier. They can provide information on the quality of the water and may be able to help with testing and analysis.
- ▶ Contact your state drinking water program to see if any requirements apply or if they can provide help.
- ▶ Contact the state or local health agency to discuss your needs.
- ▶ Local community organizations may also be able to help you in your efforts.



## Health Effects of Lead

Lead is a toxic metal that is harmful to human health when it is ingested or inhaled. Unlike most other contaminants, lead is stored in our bones, and can be released over time into the bloodstream. Even small doses of lead can build up and become a significant health risk. **While everyone is at risk, infants and young children are the most vulnerable to the harmful effects of lead.**

### Risks to Children

Children are especially susceptible to the effects of lead because their bodies are still developing. Children younger than six are at the most risk. Even at low levels of lead exposure, children may experience lower IQ levels, hearing loss, reduced attention span, learning disabilities, hyperactivity, and poor classroom performance. Exposure to high lead levels can cause coma, convulsions, and even death.

### Risks to Pregnant Women

Pregnant women who are exposed to lead may bear children with low birth weight and slowed mental and physical development.

### Levels of Risk

A variety of factors determine how harmful exposure to lead will be for an individual. The amount of lead, the number of times a person is exposed to elevated lead levels, and the length of exposure all affect the degree of risk. Age, nutrition, and health also impact risk levels.

The degree of harm depends on total exposure to lead from all sources in the environment—air, soil, dust, food, and water. Lead in drinking water can be a contributor to overall exposure, particularly for infants whose diet consists of liquids made with water, such as baby food, juice, or formula.

# How Lead Gets into Drinking Water

Lead is not usually found in water that comes from wells or water treatment plants. More commonly lead can enter the drinking water when the water comes in contact with plumbing materials such as lead pipes or lead solder, or when it comes in contact with faucets, valves, and other components made of brass. (Brass may have lead in it.) This interaction is referred to as corrosion.

Even though your public water supplier may deliver water that meets all federal and state standards for lead, or even though the water coming from your own well may have no lead or low lead levels, you may end up with elevated lead levels in your drinking water because of the plumbing in your facility. The longer water remains in contact with leaded plumbing, the more the opportunity exists for lead to leach into water. As a result, facilities with intermittent water use patterns, such as child care facilities, may have elevated lead concentrations. Water may sit in the pipes of these facilities for

## Sources of Lead Exposure

Lead is distributed in the environment by natural and human activity. (Past human activities are the major source of lead in the environment.) Possible sources of lead include:

- ▶ **Lead-based paint** that can flake off into soil, window sills, or floors
- ▶ **Lead in the air** from industrial activities
- ▶ **Dust and soil** from roadways and streets where automobiles which used leaded gas traveled
- ▶ **Lead dust** brought home by industrial workers on their clothes and shoes
- ▶ **Lead in water** from the corrosion of plumbing products containing lead

Although most lead exposure occurs when people eat paint chips and inhale dust, EPA estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Lead in drinking water may be a significant source of lead exposure for infants who consume formula mixed with water.



long periods, such as overnight, weekends, and holidays, allowing lead to leach into the water.

## Factors Contributing to Corrosion

Lead dissolves more quickly in “soft” water (i.e., water that lathers soap easily) and acidic water (i.e., low pH). Other factors, including the amount of time water is in contact with leaded plumbing, the age and condition of the plumbing, and certain characteristics of the water (such as temperature, velocity, alkalinity, and chlorine levels), affect corrosion.

The public water supplier takes steps to reduce the corrosiveness of the water. However, if the plumbing in your building is made of lead or contains lead parts, corrosion may occur once the water reaches your building and lead may leach into your drinking water.

Your child care facility may have a lead problem if:

- ▶ **The facility has lead pipes in the plumbing.** The pipes will be dull gray in color and will appear shiny when scratched with a knife or key; lead pipes have not been widely used since the 1930s and their use has been banned since 1986.
- ▶ **The facility has copper pipes joined by lead solder.** The solder joints will be dull gray in color and appear shiny when scratched with a knife or key. Use of lead solder in plumbing has been banned since 1986, and in many communities was banned prior to 1986.
- ▶ **The facility has brass pipes, faucets, fittings, and valves.** These materials may contain alloys of lead and may contribute lead to drinking water.
- ▶ **The water supplied to the facility is too corrosive.** Contact your public water supplier to determine what steps it takes to minimize these

## Potential Sources of Lead In Drinking Water

Common sources of lead in drinking water include:

- Lead solder
- Lead fluxes
- Lead pipe and lead pipe fittings
- Fixtures, valves, meters, and other system components containing brass
- Sediments

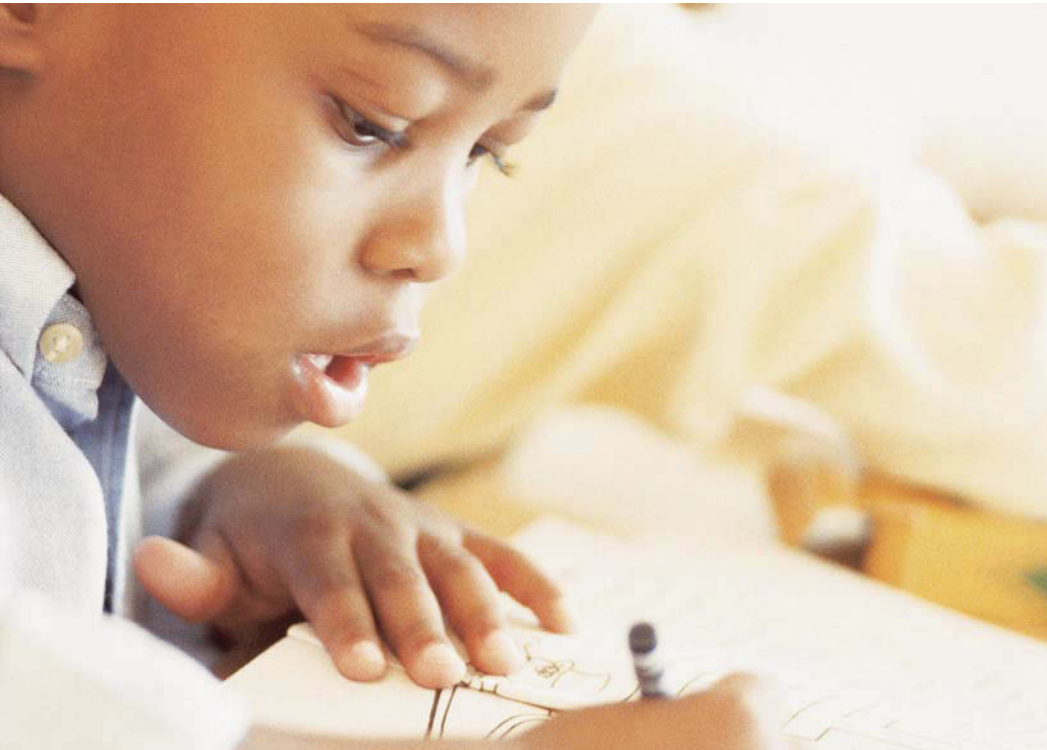


characteristics. Also, talk to your public water supplier about any questions or concerns you may have about lead levels in your facility's drinking water.

- ▶ **Sediment in the screens on faucets contain lead.** Debris from plumbing can collect on screens and may contain lead.
- ▶ **The service line to your facility is made of lead.** A service line is the pipe that carries water from the public water system main to the building.
- ▶ **Water coolers in the facility are known to contain lead parts or have lead-lined water tanks** (see EPA's listing of water coolers in Appendix B).

Note: If you rent your facility, ask your landlord to help identify potential lead in drinking water in pipes or plumbing in your building.

Some states and local jurisdictions may require lead testing in child care facilities. Consult your state or local public health agency or drinking water program to learn more. These organizations may help you test your drinking water for lead.



## Testing for Lead

You cannot see, taste, or smell lead in water; testing is the only sure way to tell if there are elevated levels of lead in your drinking water. This section outlines simple steps you can take to test your water and provides information on how to interpret the results.

If you rent your facility, notify the building owner of your testing plans, ask for help, and provide him or her with a copy of your test results. Encourage your landlord to participate in this testing process and to take corrective actions if lead problems are found.

### Choose a Certified Laboratory to Test Your Samples

Most child care facilities will need to work with a certified drinking water laboratory to analyze samples. Contact your state drinking water program (See Appendix A for contact information) or EPA's Safe Drinking Water Hotline at 1-800-426-4791 for a list of certified laboratories in your area.

Questions to ask when choosing a laboratory:

- ▶ Will the laboratory take samples for you or will they provide training and 250 milliliter (mL) sample containers for you to do the sampling on your own?
- ▶ What is the cost of the laboratory's services? Costs should range between \$20 and \$100 per sample, depending on the services provided.
- ▶ Do the samples have to be hand delivered to the laboratory, or can they be shipped? How quickly must they reach the laboratory after the sample has been taken?
- ▶ How long will it take to receive the results?
- ▶ When will the laboratory provide information on the results?
- ▶ Is the laboratory willing to establish a written agreement or contract with you for services?

## Pay Special Attention to Water Coolers

Many older (1987 and earlier) water coolers (fountains) may contain lead parts or have a lead-lined tank. Check to see if the make and model of your water coolers are listed by EPA as a possible lead risk (see Appendix B for a full list). If you have a water cooler that has a lead



lined tank, contact the manufacturer to determine their requirements for repairing, replacing, or providing a refund for your water cooler, or contact the Consumer Product Safety Commission for follow-up steps (see Appendix A for contact information).

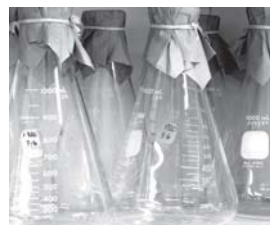
## Where to Sample

It is important to test all of the drinking water outlets in your facility, including those that provide water for drinking, cooking lunch, and preparing juice and infant formula. Outlets include drinking fountains and water faucets. Samples should be collected from cold water taps.

## How to Handle Sample Containers

If you take the samples yourself, the laboratory will provide sampling containers and instructions. Make sure to tell the lab you want to collect 250 milliliter (mL) samples, not 1 liter. **Carefully follow the instructions for handling the containers.** Fill the container only to the level indicated (250 milliliters).

Label each container with your name, a unique sample number, and the specific location where the sample was collected (“first floor hallway water fountain”). In your own files, keep a separate record for each sample with the location, sample number, date and time the sample was collected and any other pertinent information. This information may come in handy if you find elevated lead levels in your drinking water. You will want to match the result to a specific water source so you can address the problem.



Either mail or deliver your samples to the laboratory. The “holding” time on samples is usually short. Make sure you coordinate shipping with the laboratory receiving the samples.

## How to Collect Samples

### Initial Samples

The initial sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. This is water that has been in contact with the faucet or drinking water fountain and the section of plumbing closest to the outlet.

### Helpful Hints for Testing

Don't take samples after a vacation or weekend because the water you collect will not be representative of the water you drink.

Don't close the valve to a water fountain or sink before sampling. Small scrapings from the valves may get into your sample and produce inaccurate results. If you want to prevent use before you sample, place a sign over the unit to prevent its use.

You may want to collect repeat initial samples (first draw) at the same time you collect follow-up (flush) samples. A repeat of the initial/first draw sample will give you more confidence in the result. However, the trade-off is the cost for analysis of this repeat sample.

Collect cold water samples in the morning before the facility opens for the day. Make sure that no water has been used yet—don't run faucets or flush toilets before you sample. Collect the water immediately after turning it on without allowing any water to run into the drain. For best results, the outlets you are testing should not have been used for 8 to 18 hours prior to collection of the samples. This is called a first draw sample. **Take follow-up samples from outlets where test results show lead levels greater than 20 ppb (parts per billion).**

### Follow-up Samples

This sample is representative of the water that is in the plumbing upstream from the faucet or drinking water fountain. Take this sample before the facility opens and before any water is used. Let the water from the faucet or drinking water fountain run for 30 seconds before collecting the sample. This is called a flush sample.

## What To Do With Your Results

### Interpreting Your Results

When the laboratory returns your test results, the concentrations of lead in your drinking water samples will be reported in metric form such as milligrams per liter (mg/L) or micrograms per liter ( $\mu\text{g/L}$ ), or they will be reported as a concentration such as parts per million (ppm) or parts per billion (ppb), respectively.

Milligrams per liter (mg/L) is essentially the same as parts per million (ppm). Micrograms per liter ( $\mu\text{g/L}$ ) is essentially the same as parts per billion (ppb).

Examples:  $1\text{ mg/L} = 1000\ \mu\text{g/L} = 1\text{ ppm} = 1000\text{ ppb}$   
 $.020\text{ mg/L} = 20\ \mu\text{g/L} = .020\text{ ppm} = 20\text{ ppb}$

### Recommended Actions

EPA recommends that child care facilities take action if samples from any drinking water outlets show **lead levels greater than 20 parts per billion (ppb)**. Contact your state or local health agency to see if they have more stringent standards for lead in drinking water. Any drinking water outlet with test results above this level should not be used until the source of the contamination is found and the lead levels are reduced to 20 ppb or less.

Consider providing water from a known lead-free source, such as bottled water, until the problem is corrected.

If the test results from the follow-up samples show lead levels above 20 ppb again, you will know that lead is entering your drinking water from the building's interior plumbing. You will need to take additional samples to pinpoint the exact sources of lead. If you plan to conduct such sampling yourself, consult EPA's publication *3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance*, available for download at [www.epa.gov/safewater/schools](http://www.epa.gov/safewater/schools). If you rent your facility, ask your landlord to conduct follow-up testing and to take any necessary corrective measures.

# Correcting Lead Problems

## Preventing Lead Problems: Routine Steps

To minimize exposure to lead in your facility, there are several things you can do on a routine basis. These activities include:

### 1. Flush all drinking water outlets.

Flushing drinking water outlets is important because the longer water is exposed to lead pipes or solder, the greater the likelihood of lead contamination. At the start of each day, before using any water for drinking or cooking, flush the cold water faucet by allowing the water to run for 30 seconds to one minute. Do this at each drinking water outlet.



Even if all your first-draw samples and flushed samples show low lead levels, there is still a possibility that lead may get into water that sits in your plumbing for long periods (such as during vacations or over long weekends). To be safe, on the first day back, flush all drinking water outlets prior to opening the facility.

### 2. Use only cold water to prepare food and drinks.


Hot water dissolves lead more quickly than cold water and is therefore more likely to contain greater amounts of lead. If hot water is needed, water should be drawn from the cold tap and heated.

Use only thoroughly flushed water from the cold water tap for drinking and when making formula, juices, or foods.

### 3. Clean debris out of all water outlet screens on a regular basis.

Small screens on the end of a faucet can trap sediments containing lead.

## Responding to High Lead Levels: What Can You Do?

- ▶ **Provide an alternative and lead-free source of drinking water**, such as bottled water. Bottled water should be used as a temporary measure. Make sure the bottled water distributor guarantees that the water meets federal and state bottled water standards (see the label or manufacturer's Web site).
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- ▶ **Install point-of-use treatment devices**, also called 'home treatment devices'. These devices are installed on a faucet or other outlet to remove contaminants. If you are interested in a home treatment device, research your options carefully. Make sure to use a device that is certified to remove lead and is NSF International approved. Some devices that claim to remove many contaminants do not remove lead. Maintaining a treatment device is very important. If not maintained properly, some treatment devices may actually increase lead levels. Before investing in any such device, you may want to contact NSF International, an independent organization that evaluates the effectiveness of home treatment units and lists brands and models certified to remove lead (see Appendix A for contact information).
  - ▶ **Remove sources of lead in the plumbing system.** These remedies are probably more appropriate for localized contamination problems and are best handled by a licensed plumber:
    - ▶ Replace solder joints with lead-free joints.
    - ▶ Replace the outlet or fixture/faucet with lead-free materials.
    - ▶ Replace piping with lead-free materials.

Note: New brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Before purchasing any such materials, ask the manufacturer or distributor where to find information on the results of lead testing. Plumbing components 6 months old or less should not be tested for lead. The inside surfaces need time to stabilize.

# Communicating

## With Your Community

Telling parents and staff about your lead monitoring program will demonstrate your commitment to protecting children and staff health. Lead in drinking water can be an emotional and sensitive issue, especially for parents who are concerned about their children's safety. Communicating early and often about your testing plans, results, and next steps will build confidence in your facility's ability to provide a safe environment.

### When to Communicate

Whenever public health risks are involved, public communication efforts are less complicated and generate less conflict if those potentially affected are notified in advance of important issues and events. At a minimum, EPA recommends providing information to parents and staff:

- ▶ Before you begin testing.
- ▶ In response to questions from parents or other caretakers and staff.
- ▶ After you receive your testing results – Make sure to share your results and if a lead problem exists, your plans to correct any problems.

### What to Communicate

It is important to provide clear, accurate, and complete information about your lead monitoring program to parents or other caretakers and staff. Designate one staff person as a resource for parents to contact if they have more questions.

Be sure to include the following:

- ▶ Your plans to test the drinking water in your facility.
- ▶ Results from your facility and your plans for correcting any identified problems.



- ▶ Information on obtaining detailed testing results for your facility.
- ▶ Health effects of exposure to lead.
- ▶ Potential sources of lead (e.g., food, air, dust, and soil) and the significance of lead in drinking water versus other sources.
- ▶ Resources for learning more about drinking water (e.g., our local health department, state drinking water program, and EPA).
- ▶ Information on blood-lead level testing, and recommendation to visit a physician for further assistance.

## How To Communicate

There are a variety of effective ways to communicate information to parents and staff. Depending on the size of your facility, some methods may be more appropriate than others. In general, it is a good idea to have materials available in languages other than English or to provide a contact for non-English speakers, particularly if your community has a large proportion of non-English speaking residents. Consider the options below when designing a communication strategy for your lead monitoring program.

- ▶ Letters/Flyers – You can mail a letter or flyer or distribute them to children’s parents or other caretakers in person. A good letter or flyer will

## Hints for Effective Communication

- ▶ Take the initiative: Provide information before you are asked.
- ▶ Be a reliable source of information: Provide honest, accurate, and comprehensive information.
- ▶ Always speak with one voice: It is a good idea to designate one contact person (provide a phone number!) to respond to interest in your lead monitoring program.
- ▶ Anticipate likely questions: Different members of your community may have different concerns or viewpoints on the subject of lead testing.
- ▶ Be positive, proactive, and forthcoming when working with the media.
- ▶ Keep members of the community up-to-date: Share every piece of new information you have about your lead monitoring program.
- ▶ Have materials available in languages other than English.

describe the health effects of lead, your testing plan, your results or when to expect results, and your planned next steps.

- ▶ Newsletter – If you have a regular newsletter, include an eye-catching headline and a short description of your lead monitoring program.
- ▶ Email and Web sites – If you have an email distribution list for your clients and staff, email is a great way to regularly update your community about your lead monitoring program. If you have a Web site, it is a good idea to include regular updates about your lead monitoring program on your site, but also consider more direct outreach, such as a flyer, email, or newsletter article, to make sure your target community sees your lead monitoring program information.
- ▶ Presentation – If you are initiating a lead monitoring program because of past problems or a significant risk of lead in your facility’s drinking water, an in-person presentation for children’s caretakers and staff is perhaps the most effective way to communicate your message. It helps to send invitations announcing the presentation and asking caretakers and staff to attend to make sure you get your target audience in the room. An in-person presentation gives you a chance to directly communicate your commitment to safeguarding your drinking water, and it gives your audience a chance to ask questions.
- ▶ Press Release – If you find a significant lead contamination problem when you test, you may want to consider issuing a press release. It is always a good idea to be proactive about communications with the press. If you don’t tell the media first, they may be more likely to cast your story in a negative light.

For additional information on developing a communications strategy and to see sample public notice materials, download the *3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance* by visiting [www.epa.gov/safewater/schools](http://www.epa.gov/safewater/schools).

## Appendix A: Contact Information for State Drinking Water Programs and Other Sources

<b>Safe Drinking Water Hotline</b> .....	1 (800) 426-4791
<b>Consumer Product Safety Commission (CPSC)</b> .....	1 (800) 638-8772
<b>National Lead Information Center</b> .....	1 (800) 424-LEAD

### Alabama

Mr. Ed Hughes, Chief  
Drinking Water Branch  
Dept. of Environmental Management  
P.O. Box 301463  
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### Alaska

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### American Samoa

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### Arizona

Mr. John Calkins  
Drinking Water Section  
Arizona Dept. of Environmental  
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Phoenix, AZ 85007  
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### Arkansas

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### California

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### Colorado

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### Delaware

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### District of Columbia

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## Appendix B: Water Cooler Summary

The Lead Contamination Control Act (LCCA), which amended the Safe Drinking Water Act, was signed into law on October 31, 1988 (P.L. 100 572). The potential of water coolers to supply lead to drinking water in schools and child care centers was a principal focus of this legislation. Specifically, the LCCA mandated that the Consumer Product Safety Commission (CPSC) order the repair, replacement, or recall and refund of drinking water coolers with lead-lined water tanks. In addition, the LCCA called for a ban on the manufacture or sale in interstate commerce of drinking water coolers that are not lead-free. Civil and criminal penalties were established under the law for violations of this ban. With respect to a water cooler that may come in contact with drinking water, the LCCA defined the term “lead-free” to mean:

“not more than 8 percent lead, except that no drinking water cooler which contains any solder, flux, or storage tank interior surface which may come in contact with drinking water shall be considered lead free if the solder, flux, or storage tank interior surface contains more than 0.2 percent lead.”

Another component of the LCCA was the requirement that EPA publish and make available to the States a list of drinking water coolers, by brand and model, that are not lead-free. In addition, EPA was to publish and make available to the states a separate list of the brand and model of water coolers with a lead-lined tank. EPA is required to revise and republish these lists as new information or analyses become available.

Based on responses to a Congressional survey in the winter of 1988, three major manufacturers, the Halsey Taylor Company, EBCO Manufacturing Corporation, and Sunroc Corporation, indicated that lead solder had been used in at least some models of their drinking water coolers. On April 10, 1988, EPA proposed in the *Federal Register* (at 54 *FR* 14320) lists of drinking water coolers with lead-lined tanks and coolers that are not lead-free. Public comments were received on the notice, and the list was revised and published on January 18, 1990 (Part III, 55 *FR* 1772). See Table B-2 for a list of water coolers and lead components.

Prior to publication of the January 1990 list, EPA determined that Halsey Taylor was the only manufacturer of water coolers with lead-lined tanks.<sup>1</sup> Table B-1 presents a listing of model numbers of the Halsey Taylor drinking water coolers with lead-lined tanks that had been identified by EPA as of January 18, 1990.

Since the LCCA required the CPSC to order manufacturers of coolers with lead-lined tanks to repair, replace, or recall and provide a refund of such coolers, the CPSC negotiated such an agreement with Halsey Taylor through a consent order published on June 1, 1990 (at 55 *FR* 22387). The consent agreement calls on Halsey Taylor to provide a replacement or refund program that addresses all the water coolers listed in Table B-2 as well as “all tank-type models of drinking water coolers manufactured by Halsey Taylor, whether or not those models are included on the present or on a future EPA list.” Under the consent order, Halsey Taylor agreed to notify the public of the replacement and refund program for all tank type models. Currently, a company formerly associated with Halsey Taylor, Scotsman Ice Systems, has assumed responsibility for replacement of lead-line coolers previously marketed by Halsey Taylor. See below for the address of Scotsman Ice Systems.

Scotsman Ice Systems  
775 Corporate Woods Parkway  
Vernon Hills, IL 60061  
PH: (800) SCOTSMAN or 800-726-8762  
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### SPECIAL NOTE:

Experience indicates that newly installed brass plumbing components containing 8 percent or less lead, as allowed by the SDWA, can contribute high lead levels to drinking water for a considerable period after installation. U.S. water cooler manufacturers have notified EPA that since September 1993, the components of water coolers that come in contact with drinking water have been made with non-lead alloy materials. These materials include stainless steel for fittings and water control devices, brass made of 60 percent copper and 40 percent zinc, terillium copper, and food grade plastic.

<sup>1</sup>Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

**Table B-1****Halsey Taylor Water Coolers With Lead-Lined Tanks<sup>2</sup>**

The following six model numbers have one or more units in the model series with lead-lined tanks:

WM8A          WT8A          GC10ACR          GC10A          GC5A          RWM13A

The following models and serial numbers contain lead-lined tanks:

WM14A Serial No. 843034          WM14A Serial No. 843006          WT11A Serial No. 222650  
 WT21A Serial No. 64309550          WT21A Serial No. 64309542          LL14A Serial No. 64346908

**Table B-2****Water Coolers With Other Lead Components****EBCO Manufacturing**

- ▶ All pressure bubbler water coolers with shipping dates from 1962 through 1977 have a bubbler valve containing lead. The units contain a single, 50-50 tin-lead solder joint on the bubbler valve. Model numbers for coolers in this category are not available.
- ▶ The following models of pressure bubbler coolers produced from 1978 through 1981 contain one 50-50 tin-lead solder joint each.

CP3	DP15W	DPM8	7P	13P	DPM8H	DP15M	DP3R	DP8A
DP16M	DP5S	C10E	PX-10	DP7S	DP13SM	DP7M	DP7MH	DP7WD
WTC10	DP13M-60	DP14M	CP10-50	CP5	CP5M	DP15MW	DP3R	DP14S
DP20-50	DP7SM	DP10X	DP13A	DP13A-50	EP10F	DP5M	DP10F	CP3H
CP3-50	DP13M	DP3RH	DP5F	CP3M	EP5F	13PL	DP8AH	DP13S
CP10	DP20	DP12N	DP7WM	DP14A-50/60				

**Halsey Taylor**

- ▶ Lead solder was used in these models of water coolers manufactured between 1978 and the last week of 1987:

WMA-1	SCWT/SCWT-A	SWA-1	DC/DHC-1
S3/5/10D	BFC-4F/7F/4FS/7FS	S300/500/100D	

- ▶ The following coolers manufactured for Haws Drinking Faucet Company (Haws) by Halsey Taylor from November 1984 through December 18, 1987, are not lead free because they contain 2 tin-lead solder joints. The model designations for these units are as follows:

HC8WT	HC14F	HC6W	HWC7D	HC8WTH	HC14FH	HC8W	HC2F	HC14WT
HC14FL	HC14W	HC2FH	HC14WTH	HC8FL	HC4F	HC5F	HC14WL	HCBF7D
HC4FH	HC10F	HC16WT	HCBF7HO	HC8F	HC8FH	HC4W	HWC7	

If you have one of the Halsey Taylor water coolers noted in Table B-2, contact Scotsman Ice Systems (*address and phone noted on page 26*) to learn more about the requirements surrounding their replacement and rebate program.

<sup>2</sup>Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

