

**567—42.2 (455B) Public education for lead action level exceedance.** A water system that exceeds the lead action level based on tap water samples collected in accordance with 567—paragraph 41.4(1) “c” shall deliver the public education materials contained in 42.2(1) for NTNC systems and in 42.2(2) and 42.2(3) for CWS systems, in accordance with the requirements in 42.2(4).

**42.2(1) Content of written public education materials for NTNC systems.** A nontransient noncommunity system shall either include the text specified in 42.2(2), or shall include the following text in all of the printed materials it distributes through its lead public education program. Systems may delete information pertaining to lead service lines upon approval by the department if no lead service lines exist anywhere in the water system service area. Any additional information presented by a system shall be consistent with the information below and be written in plain English that can be understood by lay people.

*a. Introduction.* The United States Environmental Protection Agency (EPA) and (insert name of water supplier) are concerned about lead in your drinking water. Some drinking water samples taken from this facility have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under federal law we are required to have a program in place to minimize lead in your drinking water by (insert date when corrosion control will be completed for your system). This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we control if the line contributes lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation, please give us a call at (insert water system’s phone number). This brochure explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

*b. Health effects of lead.* Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won’t hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination—such as dirt and dust—that rarely affect an adult. It is important to wash children’s hands and toys often, and to try to make sure they only put food in their mouths.

*c. Lead in drinking water.*

(1) Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person’s total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person’s total exposure to lead.

(2) Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies such as rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect houses and buildings to water mains (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2 percent lead and restricted the lead content of faucets, pipes and other plumbing materials to 8.0 percent.

(3) When water stands for several hours or more in lead pipes or plumbing systems containing lead, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

*d. Steps you can take to reduce exposure to lead in drinking water.*

(1) Let the water run from the tap before using it for drinking or cooking anytime the water in a faucet has gone unused for more than six hours. The longer water resides in plumbing, the more lead it

may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15 to 30 seconds. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

(2) Do not cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

(3) The steps described above will reduce the lead concentrations in your drinking water. However, if you are still concerned, you may wish to use bottled water with a low-lead content for drinking and cooking.

(4) You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include: (insert the name or title of the facility official if appropriate) at (insert phone number) can provide you with information about your facility's water supply; and the Iowa department of public health at (insert phone number) or the (insert the name of the city or county health department) at (insert phone number) can provide you with information about the health effects of lead.

**42.2(2)** *Content of written public education materials for community systems.* A community water system shall include the following text in all of the printed materials it distributes through its lead public education program. Systems may delete information pertaining to lead service lines if no lead service lines exist anywhere in the water system service area, upon approval by the department. Public education language in 42.2(2)“d”(2)“5” and 42.2(2)“d”(4)“2” may be modified regarding building permit record availability and consumer access to these records, if approved by the department. Any additional information presented by a system shall be consistent with the information below and be easily understood by laypersons.

*a. Introduction.* The United States Environmental Protection Agency (EPA) and (insert name of water supplier) are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under federal law we are required to have a program in place to minimize lead in your drinking water by (insert date when corrosion control will be completed for your system). This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead service line that we control if the line contributes lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation, please give us a call at (insert water system's phone number). This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

*b. Health effects of lead.* Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination—such as dirt and dust—that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

*c. Lead in drinking water.*

(1) Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and

concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

(2) Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies such as rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2 percent lead and restricted the lead content of faucets, pipes and other plumbing materials to 8.0 percent.

(3) When water stands for several hours or more in lead pipes or plumbing systems containing lead, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

*d. Steps you can take in the home to reduce exposure to lead in drinking water.*

(1) Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call (insert phone number of water system).

(2) If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

1. Let the water run from the tap before using it for drinking or cooking anytime the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15 to 30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than (insert a cost estimate based on flushing two times a day for 30 days) per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible, use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more, and sometimes larger, pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.

2. Try not to cook with, or drink water from, the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

3. Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from three to five minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

4. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and request that the plumber replace the lead solder with lead-free solder. Lead solder looks dull gray and, when scratched with a key, looks shiny. In addition, notify the Iowa department of natural resources about the violation.

5. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the city's record of building permits which should

be maintained in the files of the (insert name of department that issues building permits). A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the portion of the line we own. If the line is only partially controlled by the (insert name of the city, county, or water system that controls the line), we are required to provide the owner of the privately owned portion of the line with information on how to replace the privately owned portion of the service line, and offer to replace that portion of the line at the owner's expense. If we replace only the portion of the line that we own, we also are required to notify you in advance and provide you with information on the steps you can take to minimize exposure to any temporary increase in lead levels that may result from the partial replacement, to take a follow-up sample at our expense from the line within 72 hours after the partial replacement, and to mail or otherwise provide you with the results of that sample within three business days of receiving the results. Acceptable replacement alternatives include copper, steel, iron, and plastic pipes.

6. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. **DO NOT** attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

(3) The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

1. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Some activated carbon filters may reduce lead levels at the tap. However, all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit.

2. Purchase bottled water for drinking and cooking.

(4) You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

1. (Insert the name of city or county department of public utilities) at (insert phone number) can provide you with information about your community's water supply, and a list of local laboratories that have been certified by EPA for testing water quality;

2. (Insert the name of city or county department that issues building permits) at (insert phone number) can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

3. The Iowa department of public health at (insert phone number) or the (insert the name of the city or county health department) at (insert phone number) can provide you with information about the health effects of lead and how you can have your child's blood tested.

(5) The following is a list of some approved laboratories in your area that you can call to have your water tested for lead. (Insert names and phone numbers of at least two laboratories.)

**42.2(3) Content of broadcast materials.** A water system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

*a.* Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for (insert "free" or dollar amount per sample). You can contact the (insert the name of the city or water system) for information on testing and on simple ways to reduce your exposure to lead in drinking water.

*b.* To have your water tested for lead, or to get more information about this public health concern, please call (insert the phone number of the city or water system).

**42.2(4) Delivery of a public education program.**

*a.* In communities and in NTNC facilities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language(s).

*b.* A community water system that fails to meet the lead action level on the basis of tap water samples collected in accordance with 567—paragraph 41.4(1) "c" and that is not already repeating public education tasks pursuant to 42.2(4) "c," "g," or "h" shall, within 60 days:

(1) Insert notices in each customer's water utility bill containing the information in 42.2(2) along with the following alert on the water bill itself in large print: "SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION." A CWS having a billing cycle that does not include billing within 60 days of exceeding the action level, or that cannot insert information in the water utility bill without making major changes to its billing system, may use a separate mailing to deliver the information in 42.2(2), as long as the information is delivered to each customer within 60 days of exceeding the action level. Such water systems shall also include the water bill "alert" language previously specified.

(2) Submit the information in 42.2(2) to the editorial departments of the major daily and weekly newspapers circulated throughout the community.

(3) Deliver pamphlets or brochures that contain the public education materials in 42.2(2) "b" and "d" to facilities and organizations, including the following: public schools and local school boards; city or county health departments; Women, Infants, and Children and Head Start program(s) whenever available; public and private hospitals and clinics; pediatricians; family planning clinics; and local welfare agencies.

(4) Submit the public service announcement in 42.2(3) to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

*c.* A community water system shall repeat the tasks in 42.2(4) "b"(1) to (3) every 12 months and the tasks in 42.2(4) "b"(4) every 6 months for as long as the system exceeds the lead action level.

*d.* Within 60 days after it exceeds the lead action level (unless it already is repeating public education tasks pursuant to 42.4(4) "e"), a nontransient noncommunity water system shall deliver the public education materials in 42.2(1) or 42.2(2) as follows:

(1) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(2) Distribute informational pamphlets or brochures on lead in drinking water to each person served by the nontransient noncommunity water system. The department may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as the system achieves at least the same coverage.

*e.* A nontransient noncommunity water system shall repeat the tasks in 42.2(4) "c" at least once during each calendar year in which the system exceeds the lead action level.

*f.* A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to 567—paragraph 41.4(1) "c." Such a system shall recommence public education in accordance with this subrule if it subsequently exceeds the lead action level during any monitoring period.

*g. Special allowances for CWS with restricted populations.* A CWS may apply in writing to the department to use the text specified in 42.2(1) in lieu of the text in 42.2(2), and to perform the tasks listed in 42.2(4) “d” and 42.2(4) “e” instead of in 42.2(4) “b” and 42.2(4) “c” and if:

(1) The system is a facility such as a hospital or prison, where the population served is not capable of or is prevented from making improvements to plumbing or installing point-of-use treatment devices; and

(2) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

*h. Special allowances for a CWS serving 3,300 or fewer persons.*

(1) A CWS serving 3,300 or fewer persons may omit the task in 42.2(4) “b”(4). As long as it distributes notices containing the information contained in 42.2(2) to every household served by the system, the system may further limit its public education programs as follows:

1. A system serving 500 or fewer persons may forego the task in 42.2(4) “b”(2). Such a system may limit the distribution of the public education materials required under 42.2(4) “b”(3) to facilities and organizations served by the system that are most likely to be visited regularly by children and pregnant women, unless the system is notified by the department that it must make a broader distribution.

2. If approved in writing by the department, a system serving 501 to 3,300 persons may omit the newspaper notification and limit the distribution of the public education materials required under 42.2(4) “b”(3) to facilities and organizations served by the system that are most likely to be visited regularly by children and pregnant women.

(2) A CWS serving 3,300 or fewer persons that delivers public education in accordance with 42.2(4) “h”(1) shall repeat the required public education tasks at least once during each calendar year in which the system exceeds the lead action level.

**42.2(5)** *Supplemental monitoring and notification of results.* A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with 567—paragraph 41.4(1) “c” shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.

**42.2(6)** *Special lead ban public notice.* Rescinded IAB 10/18/00, effective 11/22/00.