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EPA

LEAD IN DRINKING WATER REGULATION:

Public Education Guidance

EPA would like to thank the City of Raleigh, Wake County, and the North Carolina Department of Human Resources for their valuable assistance in planning and implementing the EPA pilot public education program on lead in drinking water. Many professionals and volunteers offered significant contributions to this effort—special thanks to the Raleigh Department of Public Utilities, members of the Raleigh Task Force and the National Advisory Group, and community volunteers who provided invaluable assistance to this project, both in developing the pilot study and creating this guidance manual.

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Objective and Organization

The Environmental Protection Agency (EPA) developed this guidance manual as a tool to assist water suppliers with conducting a community-based, public education program on lead in drinking water. The program described here is based on both EPA's national primary drinking water regulations (NPDWRs) for lead and copper,[1] and practical experience gained from a pilot public education program on lead in drinking water conducted by EPA in cooperation with Raleigh, North Carolina.

The guidance manual is divided into four sections. Section I summarizes public education program requirements that water suppliers must meet to comply with the Federal regulation. Section II describes how to develop an action plan for your program. Section III discusses how a community-based task force can assist you with conducting your program. Section IV describes practical tips for implementing the program. This guidance manual also includes five exhibits providing camera-ready public education materials and sample resources that can be used to implement the program.

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[1] Environmental Protection Agency, 40 CFR 141 and 142 - Drinking Water Regulations: Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper; Final Rule (56 *FR* No. 110, June 7, 1991)

Introduction

Human exposure to lead has long been an important public health issue. Exposure can occur from many sources, including old lead-based paint and contaminated dust and soil (from the disintegration of lead-based paint or from past deposits of gasoline emissions). Lead exposure has been long known to cause neurological impairment, altered physical development and blood chemistry, and adverse effects on the cardiovascular system. Health experts now recognize that exposure to even small amounts of lead poses a potentially significant health risk, especially in infants and young children. In response, EPA has taken a number of actions to limit our total exposure to lead, such as phasing out the use of lead in gasoline. As a result of EPA's actions and those of other government agencies, total exposure to lead is much lower today than in the late 1970s.

For many communities, however, lead in drinking water remains a widespread, controllable source of lead and, as such, the Federal government has focused significant attention on its reduction. For instance, the use of lead distribution pipes and lead solder, once a common practice, is now prohibited.

On June 7, 1991, EPA promulgated revisions to the maximum contaminant level goals (MCLGs) and national primary drinking water regulations (NPDWRs) for controlling lead and copper in drinking water (*Federal Register*, Vol. 56, No. 110, pp. 26460-26564). These regulations require water suppliers to optimize corrosion control to minimize lead and copper as corrosion by-products. In addition, they require water suppliers to educate their customers about specific measures to reduce lead levels in home drinking water caused by lead household plumbing materials—the primary source of lead in drinking water.

The final rule specifies that a water system must conduct a public education program on lead in drinking water if more than ten percent (10%) of the drinking water samples taken from residences served by the water system exceed the EPA "action level" of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/l), as determined by tap

water samples collected in accordance with §141.86 of the regulation.* Specific requirements regarding the content and delivery of this public education program are outlined in §141.85 of the regulation. This guidance delineates these requirements and describes a practical approach for successfully carrying out a public education program on lead in drinking water.

In the winter of 1989, EPA conducted a pilot public education program on lead in drinking water in Raleigh, North Carolina to determine the level of effort required to implement such a program and identify the types of information materials and distribution methods that are most effective in reaching consumers. EPA developed and implemented the pilot program in cooperation with City of Raleigh, Wake County, and North Carolina State authorities as well as civic and business interests.

The Raleigh pilot program confirmed that a community-wide public education program describing the potential risks of lead in drinking water and detailing practical methods of reducing lead ingestion can successfully reduce exposure to lead in drinking water. As indicated by the extensive evaluation of the pilot program, the best way to ensure that community members take action to reduce their risk of exposure to lead is to *provide for substantial repetition of messages using a variety of media.* In keeping with the results of the Raleigh pilot program, the final rule requires substantial repetition of public education messages using a variety of media.

The pilot program also demonstrated the importance of securing assistance from the community to implement the public education program. *Involving a number of community organizations, as well as experts who are knowledgeable about such relevant issues as health effects of lead and community and media relations, serves to distribute the workload and improve the quality of the program.* Raleigh effectively used this community-based approach to both develop and carry out the pilot program. This guidance presents lessons learned from the EPA/Raleigh pilot program to assist you in developing and carrying out a community-based education program on lead in drinking water.

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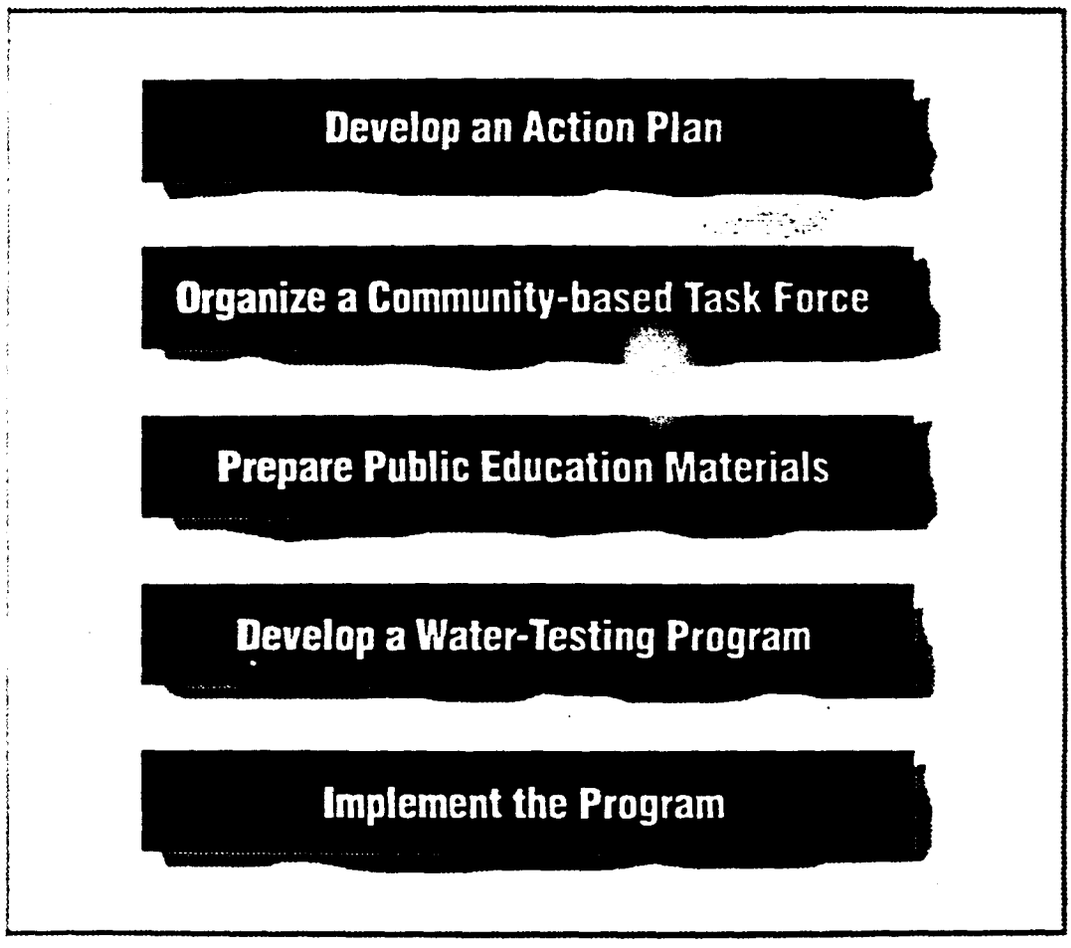
* The National Primary Drinking Water Regulations for Lead and Copper specify th first six-month water monitoring period shall begin on the following dates:

- January 1, 1992 — Large systems (serving > 50,000 people)
- July 1, 1992 — Medium-size systems (serving 3,301 to ≤ 50,000 people)
- July 1, 1993 — Small systems (serving ≤ 3,300 people)

Key Steps in Conducting a Public Education Program on Lead in Drinking Water



Section I
Summary of Program Requirements

Section 141.85 of the Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper (56 FR No. 110, June 7, 1991) contains specific requirements regarding the content and delivery of your public education program. A brief summary of these requirements is outlined below.

Content

Section 141.85(a) provides specific language that should be used in all printed materials developed under the lead public education program and requires all materials to be readily understandable by the layperson. This language describes the potential health effects of excess exposure to lead and the reasons why lead in drinking water is of particular concern. It provides step-by-step instructions for water testing and follow-up actions that can be taken to reduce both short-term and long-term exposure to lead in drinking water. Section 141.85(a) also requires the water system to provide water testing. Section 141.85(b) provides specific language for water systems to use in all public service announcements and broadcast materials developed as part of this program.

Delivery

According to §141.85(c) of the final rule, your public education program must be delivered to your entire service area, and targeted to high-risk segments of the population (i.e., community members who are either more susceptible to the adverse effects of lead or who are at greater known risk of exposure to lead in drinking water). If your community includes a significant proportion of non-English speaking persons, the information materials also should be available in the appropriate languages to ensure that non-English speaking customers and members of the public understand the information [as specified in §141.85(c)].

Requirements for Community Water Systems

According to §141.85(c), a community water system that exceeds the EPA lead action level, on the basis of tap water samples collected in accordance with §141.86, must perform the following actions:

- Distribute informational notices in water utility bills, along with a special alert on the water bill itself, *every twelve months*;
- Publish informational notices in major local newspapers, *every twelve months*;
- Deliver pamphlets or brochures *every twelve months* to specified facilities and organizations, including public schools and/or local school boards; city or county health departments; Women, Infants, and Children (WIC) and/or Head Start programs (if available); public and private hospitals or clinics; family planning clinics; and local welfare agencies; and
- Release public service announcements *every six months* to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

Water systems must perform these actions within 60 days from the time the lead action level is exceeded.

You must also submit a letter to the state *by December 31 of each year* demonstrating that your system has delivered the public education materials that meet the regulation's content and delivery requirements. This letter must include a list of all newspapers, radio and television stations, facilities, and organizations to which you have delivered public education materials during the previous year. The above activities, including information dissemination as well as the letter to the state, must be performed for as long as the lead levels in your community's drinking water exceed the specified lead action level. The time line on the following page illustrates the timing of the various activities.

Time Line for Community Water Systems: Distributing Public Education Materials

	Bill Insert	Pamphlet/ Brochure	Newspaper Announcement	Public Service Announcement	Letter to State
Every 6 Months				❑	
Every 12 Months	❑	❑	❑		
December 31 of Each Year					❑

Requirements for Non-transient, Non-community Water Systems

Within 60 days of exceeding the EPA lead action level, a non-transient, non-community water system must deliver public education materials as follows:

- Display informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and
- Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the non-transient, non-community water system;

The non-transient, non-community water system must repeat these actions *at least once during each calendar year* in which it exceeds the EPA lead action level. The system may discontinue public education activities if the lead action level is subsequently met. The time line on the following page illustrates the timing of these activities.

Time Line for Non-transient, Non-community Water Systems: Distributing Public Education Materials

	Poster	Pamphlet	Letter to State
Every 12 Months	❑	❑	
December 31 of Each Year			❑

Water Testing

As mentioned above, as part of the public education program, §141.85(d) requires water systems to provide tap water sampling to any customer who requests it. The system may conduct the sampling and analysis itself or arrange for a certified laboratory to perform the testing. Customers must be informed of the results. You may charge customers for this service.

Section II
Developing an Action Plan

What is an Action Plan?

As the water supplier, you are responsible for conducting the education program on lead in drinking water. This is a large task. The regulations require you to distribute information to customers, the media, public schools, the city or county health department, and a number of public and private community organizations. Therefore, EPA recommends (but does not require) that you develop an action plan for carrying out the program. The action plan is a tool to assist you in organizing and implementing the various activities included in your education program. In addition, the action plan should describe the resources (funding as well as professional and volunteer support) that will be needed to implement the program.

A sample action plan is provided in Exhibit 1. You may begin by using this generic plan to design a public education program specific to your community.

What to Include in Your Action Plan

An action plan should achieve four basic objectives:

1. Define the program audience;
2. Outline a customer water testing program for lead;
3. Identify the types of education materials that will be used; and
4. Determine how and when to best deliver the information to your audience.

Defining Your Program Audience

Identifying your audience is one of the first and most important decisions that you should make concerning your program. The size, location, and cultural composition of the audience will have a direct

effect on the design of your program—from the educational materials you use to how you distribute information. Following is a brief description of the types of audiences your education program must target.

General Public/Customers. Your service area includes everyone who receives water from your distribution system. Obviously, your customers include a wide variety of people who live in different locations and types of residences and who represent different age groups, socioeconomic levels, and family sizes and compositions.

High-risk Groups. A high-risk group is a specific group of people who may be more adversely affected by high levels of lead than others. Examples of groups that are at particular risk to lead include pregnant women, infants, and children. Therefore, you will want to distribute information materials through agencies and organizations who serve these high-risk groups.

Non-English Speaking Public. If a significant proportion of the population in your community speaks a language other than English, education materials on lead in drinking water must also be prepared in the appropriate language(s) to ensure that non-English speaking persons have access to this information.

Providing Water Testing Services

Providing water testing services is a key component of your program. You need to develop a process for conducting and analyzing the samples and reporting results or arrange to have these services provided by a local laboratory or water testing company. There are four key elements of a water testing program:

- ❑ Providing a way for people to request water testing;
- ❑ Conducting the tests in a timely manner;
- ❑ Ensuring that the tests are conducted properly; and
- ❑ Providing the test results along with additional follow-up information.

Exhibit 2 provides two examples of water testing information materials.

Identifying the Types of Education Materials that Will Be Used

Pamphlets or brochures, posters, bill inserts, news releases, and public service announcements are the types of materials you are required to distribute as part of your public education program. Examples of these materials are included in Exhibits 3-5. Community members can assist you in preparing, printing, and distributing these materials.

Determining How and When to Distribute Information

To reach the largest and most diverse audience possible, it is important to use a variety of communication methods. Methods of communicating information include *distribution through government agencies, schools, public and private health care and day care providers, community organizations, and the media.* Pamphlets or brochures on lead in drinking water should be distributed directly to parents and children through school teachers and day care, health care, and community service providers. Notices must be sent to local newspapers and mailed to customers as a separate mailer or in their water bills. Public service announcements must be delivered to radio and television stations. Non-transient, non-community water systems must display informational posters in a public place or common area [illegible]ch of the buildings served by the system and distribute pamphlets or [illegible]hures to each person served by the system. It will be helpful to devise a schedule for implementing the water testing program, developing education materials, and distributing them to the public and targeted groups.

Section III
Working With a Task Force

Organizing a Task Force

Once you have given some initial thought to planning and organizing your education program, we encourage you to seek assistance from a variety of community organizations. Organize a task force or committee comprised of community members representing the public, private, and civic sectors to assist you in organizing and implementing a public education program on lead in drinking water. Task force members can help you with all aspects of the program, from developing the action plan to preparing or printing education materials and implementing the program.

Who To Include on Your Task Force

It is important to establish a task force whose members will voice the concerns and share the expertise of a variety of local organizations and interests. A diverse task force will provide you with access to a wide range of community resources. We recommend including representatives from the following community groups:

- ❑ City, county, and state government officials (e.g., representatives of the city, county, or municipal council; the mayor's, city administrator's, or county commissioner's office;
- ❑ City or county government agencies (e.g., the human resources, public affairs, health, and environmental protection or water quality departments; and agencies responsible for administering lead screening programs);
- ❑ Representatives of the local public school system;
- ❑ Representatives of public hospitals and/or clinics;

- Members of active community service organizations (such as the Head Start Program; the Women, Infants, and Children's Nutrition Program; family planning clinics; and local welfare agencies);

- Civic groups (for instance the Chamber of Commerce, neighborhood associations, and local chapters of organizations like the League of Women Voters and the Sierra Club); and

- Private sector (day-care centers, pediatricians, health care facilities or clinics, and hospitals).

Each of these groups has a unique and important contribution to make to the program. Government officials lend credibility and authority, and, as a result, can draw attention to the program. Government agencies offer an array of specialized services and technical expertise from mobilizing community resources and media involvement, to providing expertise on the health effects of lead.

Schools represent the largest gathering of children in any community. Therefore, the schools can be an important conduit for delivering information on lead in drinking water to the public. As education experts, public school officials and teachers can provide valuable support to the program.

In addition, community service organizations can distribute information to high-risk targeted groups; civic groups can offer valuable volunteer assistance; and the private sector can underwrite program costs as well as distribute information to high-risk targeted groups.

Some communities may decide to invite a media representative to serve on the task force. If you choose to do so, you may want to involve someone at the supervisory level rather than a general reporter. Such a task force member could serve as an advisor on how to best involve the media to foster constructive, widespread publicity for your program. If you feel uncomfortable involving the media in this capacity, designate one member of the task force as a media "liaison" with special responsibilities related to media coverage of the program. In Raleigh, a representative from the City's Public Affairs Department served in this capacity. Regardless of the extent to which you decide to involve the media, establish contact with local media representatives *before* the official "kick-off" of the program.

As you solicit the help of different organizations, it is important for you to define each organization's role in your program. It is also important to gauge the level and type of commitment that the group or representative is willing to give to the project. You will find that some individuals and organizations are able to commit a great deal of time and resources to the program, because it will directly affect issues or other programs in which they are involved. Others only will be interested in taking on an advisory role. Your action plan should provide you with a general sense of how much help you will need to complete the tasks associated with the project.

Using the Task Force to Help You Conduct a Successful Public Education Program

After you have formed a community-based task force, we encourage you to organize a meeting to review and refine the action plan. Schedule your meeting with as much advance notice as possible in order to allow task force members time to review the draft plan and arrange their schedules to attend the meeting.

The purpose of this meeting is to solicit input from task force members on those aspects of the action plan where they have particular expertise and to obtain their commitment to carry out specific activities identified in the plan. Their involvement is likely to be most useful in designing materials to appeal to particular groups, reviewing draft information materials to ensure that they are targeted properly and that they clearly present the program's message, and distributing materials through their organizations.

Supplement 1A to this section describes the roles various city and county organizations played in the Raleigh pilot. Supplement 1B describes the role of the Raleigh Department of Public Utilities in planning and implementing the program.

Supplement 1A
The Role of the Community

Dempsey Benton, City Manager of Raleigh, discusses the roles that City of Raleigh personnel played in developing the pilot program.

Participating in EPA's pilot education program on lead in drinking water was a learning experience for many people involved in City of Raleigh government. Four City departments, Public Affairs, Parks and Recreation, Human Resources, and Public Utilities, were involved in the program.

The responsibilities taken on by these organizations varied widely. The Public Affairs Department prepared press releases, helped schedule the "kick-off" press conference, and made media contacts. The Parks and Recreation Department's responsibilities included distributing information materials at its community centers throughout the City. These community centers also served as collection points for water samples taken by citizens for analysis by the Public Utilities Department. The Human Resources Department coordinated with the Raleigh Citizens Advisory Councils (neighborhood associations formally recognized by the City); the Head Start Program; Women, Infants, and Children Program; and day care facilities to assist with the distribution of information materials.

The Department of Public Utilities was the m[illegible]articipant in the program. Staff members were responsible for coordi[illegible] with the EPA, talking to citizens about the project, contacting the me[illegible]th updates throughout the program, participating in meetings with different citizens' groups, and working closely with the Wake County Public School System to determine if there were any lead problems in the local schools. In addition, the Utilities Department analyzed the 969 water samples that were submitted for lead tests during the program.

Finally, a word must be said about volunteers. In order to take on this pilot project, the City had to rely on the efforts of many volunteers from different civic organizations and other public agencies. The Raleigh Citizens Advisory Councils, the Capital Area Sierra Club, the League of Women Voters, and the St. Raphael's Young Mothers Group, all contributed to the program. In addition, the Wake County Public School System, the Wake County Health Department, the North Carolina Department of Human Resources, and the Raleigh Chamber of Commerce all provided insight and assistance in a variety of ways. Each of these organizations was instrumental in carrying out the goals of the program.

The City of Raleigh's participation in EPA's pilot education program helped us to better inform our customers about the potential problems associated with lead in drinking water and prepared us to deal effectively with other drinking water issues that may arise in the future.

Supplement 1B
The Role of the Water System

Carl Simmons, Director of the City of Raleigh Department of Public Utilities, discusses his department's role in developing and conducting the pilot public education program in Raleigh.

The staff of the Raleigh Department of Public Utilities learned a great deal about preparing a public education program through its participation in EPA's pilot public education program on lead in drinking water. One of the key things we learned is that developing such a program consumes a significant amount of staff time. However, during the course of the program, we also realized that drawing on the expertise and distribution systems of other organizations eased the burden somewhat and provided expertise that did not exist in the department. Prior to getting involved in this program, I was unaware of County and State programs that dealt with lead issues. Water suppliers need to seek out these diverse sources of expertise because citizens have numerous questions regarding the health consequences of elevated lead levels in their drinking water that you may not be able to answer completely.

We also learned it is very important to make contact with local media representatives in advance of your program in order to acquaint them with its goals and objectives. In Raleigh, radio and TV stations, as well as local newspapers were receptive to our information and helped present the program in a positive and upbeat manner.

The largest impact of the program on the Raleigh Public Utilities staff was the City's commitment to provide its customers with free water tests. The number of requests for water tests increased tremendously throughout the program due to media coverage. During the four-month period of our program, we received 966 requests for lead analyses. Doing that volume of work with our existing staff was a real challenge. Other utilities departments should be prepared for a similar response if they decide to offer water tests and be ready to commit a significant amount of staff time to dealing with these requests.

Section IV
Preparing Public Education Materials

There are a number of different types of information materials and promotional tools that you may develop for your education program. They can be broadly categorized into two groups: printed materials and tools for promoting media coverage. EPA has developed some of the required materials for you to copy or adapt for your community.

Using a variety of materials and communication methods will help ensure that you reach all sectors of your community. Make sure to address all of the content and delivery requirements designated in the final rule and outlined in Section I of this manual.

This section describes the required education materials and discusses communication methods for each of these versatile tools.

Printed Materials

Pamphlets/Brochures and Bill Inserts/Mailers

Content. Section 141.85 of the regulation specifies the minimum content of the public education materials delivered to customers. Water suppliers can add or modify the specified language, as long as it does not contradict the minimum required information. Exhibit 3 is a camera-ready pamphlet that water suppliers can deliver to their customers. You will notice that Exhibit 3 contains all of the required information, but the information is slightly reorganized to include an open letter that provides customers with the key message up front. Customers that wish more detailed information may read the foldout pages. State and local telephone numbers for additional assistance are displayed prominently on the back panel. Finally, the pamphlet has several blank places for the water supplier to add specific information regarding treatment schedules, home sample collection, and telephone numbers. Please be sure to provide this information, where indicated. The American Water Works Association (AWWA) has developed a comprehensive lead public

information package. The package includes the mandatory education materials (e.g., bill inserts, PSAs) described in this manual, customized for individual water systems, as well as sample news releases and additional pamphlets on lead. Information on AWWA's program can be obtained by calling 800-926-7337.

Format. It is important that your information materials be attractive, "eye-catching," and easy to read. The physical presentation and readability of your materials are just as important as the accuracy of the information presented. You are encouraged to use short, catchy, and colorful pamphlets, which are typically more effective in capturing the readers' attention. Your budget will likely dictate your use of graphics, quality of the paper, and the number of colors of ink you use to print your materials. (Remember to use your task force—some members may have access to low-cost printing or reproduction facilities, or may be willing to donate or incur the cost of printing.)

Many water suppliers periodically enclose special information notices or inserts in their customers' water bills. If you already provide this service, you may choose to focus a particular notice on lead in drinking water. If you do not have such a service, you can use the camera-ready pamphlet provided in Exhibit 3 or adapt the pamphlet for use as a "bill insert." Bill inserts are relatively inexpensive to produce—especially if you already have a regular notice service.

Delivery Methods. Bill inserts can be mailed to your water customers with their monthly water bills. (Remember that people who live in apartment complexes or other housing units where the water bill is paid by a landlord or a supervisor will not be on your mailing list. The landlord or supervisor for such buildings should be mailed extra bill inserts for distribution to residents.)

Distribute pamphlets via government agencies, schools, community service programs, and health care providers. Teachers, day-care providers, pediatricians, and doctors in hospitals and health clinics can be valuable resources for distributing information materials, especially to high-risk groups, such as pregnant women and families with children and infants. Various community service programs such as the Women, Infants, and Children Nutrition Program (WIC), Headstart (a pre-school education program for economically disadvantaged children), and child lead screening programs should be targeted to distribute educational materials to their clients.

Furnish information materials in display racks in both public and private facilities. A display consisting of a poster and pamphlets is useful for communicating with target audiences, such as pregnant mothers and families with infants and children, as well as with the general public. Exhibit 4 provides two posters: the first contains required language and can be ordered from the Safe Drinking Water Hotline, and the second is an example developed for the Raleigh Pilot. Consider exhibiting posters and providing display racks full of pamphlets to private facilities, such as day-care centers and doctors' offices, as well as in public places, such as the local water utility, health department, and community centers. Day-care centers, libraries, and churches may be particularly helpful in smaller communities without many large public agencies.

Tools and Methods for Promoting Mass Media Coverage

The media can be a powerful tool for providing information to a large audience at low cost. Media attention builds upon itself. A story about lead in drinking water in one newspaper may inspire a competing newspaper to look into the issue further or a radio or television station to do a feature in an upcoming broadcast. Stories in the national news or in well known publications also can inspire local media sources to examine the issue more closely.

It is important that you provide reporters with direct, easy to understand, and complete information regarding monitoring results, the sources of lead in your community's drinking water, and the treatment and educational programs you are implementing to remedy the problem. In order to develop an effective media strategy for your program, it is important to obtain expert assistance from your municipality's public affairs office or a public relations expert. According to residents, the media campaign proved to be the most effective source of information in the Raleigh pilot program. Supplement 2 describes the Raleigh media campaign.

News Releases or Media Notices

Format. News releases are brief informational notices that are distributed to local press representatives. Always include the name and phone number of an informed contact so that media representatives can obtain more information and cover the issue more fully than presented in a news release.

Delivery Method

Local Newspapers. The regulation requires wa[illegible] systems to deliver information every 12 months to editorial d[illegible]ents of the major daily and weekly newspapers circulated throughout the community. Newspapers are always in search of newsworthy items and will often publish feature articles based on a news release or coverage of a press conference. You should use all major daily or weekly newspapers to get your message delivered. It is recommended that you meet with the managing editors of the major newspapers early in the project to solicit their support.

Radio and Television Stations. Radio and television stations are a prime source of information for most people. Radio and television news programs often feature brief spots based on a news release or coverage of a press conference. The stations also broadcast brief public service announcements as a community service. In addition, they feature news briefs, special interest features, and talk shows on local issues of interest. You should promote radio and television coverage of the lead in drinking water issue as the best way to get your message delivered to a mass audience at no cost.

Public Service Announcements

Format. A public service announcement (PSA) can be broadcast on either radio or television. A PSA is very brief (20 seconds) and can provide far-reaching, low-cost publicity for your program. A pre-taped or written announcement can be provided to radio stations; the text for a video spot or an actual videotaped message can be provided to television stations. Exhibit 5 provides a sample public service announcement.

Delivery Methods

Local Radio and Television Stations. The regulation requires delivery every six months of lead in drinking water public service announcements to at least five of the radio and television stations with the largest audiences in the community.

Supplement 2
Making the Most of Media Coverage

Jade Jurek of the Raleigh Department of Public Affairs and member of the task force for the EPA/Raleigh Pilot Program offers her views on the importance of utilizing the media and how to work most effectively with the media.

The support of the mass media—radio, television, newspapers, and magazines—is essential to the success of any public education program. The media is one of the most effective means of reaching a large number of people with information they can readily understand and use.

Public officials and community organizers are often wary about inviting media attention to an issue of public concern for fear that the reporting will be inaccurate or unjustly critical. To the contrary, being proactive—by initiating discussions about the issue—rather than being reactive with the media will yield substantial control and advantage in what is reported.

Water suppliers who are required to develop lead in drinking water public education programs in their communities are encouraged to involve the local media at the outset of the program. Widespread media involvement, initiated and directed by the local task force, can produce very effective educational results. In Raleigh, the Public Utilities Department, with the assistance of the Public Affairs Department, made contact with media representatives on a personal basis. (It is important to contact *all* major media serving the community—this will ensure more widespread coverage of the issue and eliminate accusations of bias or favoritism on the part of the water utility.) At these meetings, media representatives were informed about the lead in drinking water issue, and the commencement of a city-wide education program. All members of the press were invited to a press conference and were asked to provide public service support throughout the education program.

These meetings should be attended by the director of the water utility, the director's key staffer assisting with this effort, and one or two other members of the local task force. This will demonstrate the local water supplier's commitment to the issue. The meetings should be held with the news director or someone with decision-making authority within the media organization. In addition, it is important to be specific about what you are requesting (i.e., please consider airing public service announcements, please provide periodic coverage of the issue throughout the education program). It is also important to provide media representatives with the name and phone number of a contact person whom they can call to obtain more information.

To ensure responsible and accurate coverage of the lead in drinking water issue, provide the media with background information on the subject as well as prepared news releases. In addition, keep media representatives informed about program activities and address their questions and concerns speedily at all times. Information should always be presented to the media fairly and accurately; in turn, the media can be expected to report on issues in the same manner. For instance, if a community has a lead in drinking water problem, such as lead distribution lines or lead contamination in school water fountains, the media should be encouraged to report fairly on the situation and, more importantly, to explain what is being done in response to the problem.

Section V
Practical Tips for Implementing the Program

Once you have developed an action plan, established a task force, set up or arranged for a customer water testing program for lead, and designed and printed your education materials, you are ready to implement the program. Conducting the program involves completing all of the tasks outlined in the action plan. Implementation should flow smoothly if you have organized and planned your efforts efficiently. In addition to the guidance contained in previous sections, some practical tips for implementing your program are provided below.

Pacing Program Activities

It is important to remember that an education program can only be effective if it is administered over a period of time. Competing demands for people's attention (i.e., information overload) can be a significant communication impediment. Therefore, it is suggested that you pace outreach activities over several months to ensure that people are given several opportunities to receive the message. For example, the regulation requires that you deliver bill inserts, pamphlets or brochures, and newspaper announcements every twelve months. You may decide to distribute pamphlets and display posters one month, send notices to newspapers a few months later, and then follow-up with a mailer or water bill insert the following quarter.

Some program activities must precede others to ensure a successful approach. For example, information materials should be ready for distribution prior to issuing a news release or public service announcement. Also, all elements of a water testing program must be in place before information materials advertising the program are distributed or it is announced by the media.

You should also be sensitive to the potential effects of the program on local agencies, such as the local health department, a child lead

screening program, or the public school system. For example, you should coordinate with the local health department and the child lead screening program to ensure that they are prepared to handle public inquiries about the health effects of lead or requests for blood lead screening tests. You should involve the local schools at the start of the program to ensure that education officials are not blind-sided by publicity about the issue of lead in drinking water stemming from the program. Schools represent the largest gathering of children in any community and school drinking fountains and plumbing systems are a potential source of lead in drinking water. Therefore, it is prudent to test the schools' water supplies and remedy any problems prior to launching a public education program on lead in drinking water, both from a public health as well as a public relations standpoint. A guidance document explaining how to test water in schools for lead, identify potential problems, and take corrective action is available from the U.S. Government Printing Office. (See the Information Sources at the end of this document for information on how to obtain this document.) Supplement 3 outlines the testing program undertaken by the Wake County Public Schools Department as part of the Raleigh pilot project.

Providing Water Tests or Information on Water Testing

If you decide to provide water tests to your customers, you should plan for this aspect of your program well in advance of offering this service. Keep in mind that you may get a significant number of requests for this service, particularly at times when your program is especially visible. Be prepared to respond to all of these requests as promptly as possible. Arrange to have adequate staff support and laboratory assistance to carry out your water testing program. You will also need to prepare instructions for collecting water samples at the tap. Your instructions should be as clear and simple as possible in order to prevent misinterpretation. A pictorial explanation of the process instead of or in addition to a written explanation will probably be the most useful to members of your community. (Two sets of sample materials are included in Exhibit 3. Although graphics are not used in these sample materials, it is recommended that you use graphics in your materials.) You also will need to decide how to collect samples and manage sampling data. In addition, you must prepare "notification of results" letters. Your letter of notification should give residents detailed technical results as well as a clear explanation of the different levels of lead contamination.

If you choose instead to provide only information on water testing to your customers, research the services that are available in your area and give community members instructions on how to arrange for a water test (names and telephone numbers of local services) as well as information on how much the test will cost. Make it as easy as possible for customers to obtain the services they need.

Responding to Public Inquiries

It is important to provide people with an opportunity to ask questions or obtain further information about the issue of lead in drinking water. The simplest way to provide this service is to publish phone numbers of organizations that can respond to public inquiries about lead in drinking water. In Raleigh, the Department of Public Utilities responded to questions on the quality of public water supplies, general questions about lead in drinking water, and the water testing program. The Wake County Health Department and the North Carolina Lead Screening Program served as clearinghouses for inquiries about the health effects of lead and child lead screening services. Information materials used in the pilot program also listed several local laboratories for citizens using private wells. EPA strongly encourages you to provide similar services as part of your education program. *Be sure that each organization listed as a source for additional information in your education materials has informed all staff who answer the phone to expect inquiries about lead in drinking water and has instructed its staff on how to answer or refer such calls.* Also, consider keeping track of phone inquiries as a way to gauge the progress and effectiveness of your program.

Supplement 3
Testing Water in the Schools

Riley Reiner, Director of Operations of the Wake County Public Schools, discusses the importance of testing drinking water in the schools.

The local school superintendent and appropriate staff should be invited to participate in the planning process for conducting a public education program on lead in drinking water. Schools represent the largest gathering of children in any community; thus, water quality in the schools is likely to be the focus of public scrutiny on the issue of lead in drinking water.

Prior to any public announcement about lead in drinking water or the start of an education program, drinking water sources throughout the school system should be screened for lead. Testing drinking water in schools prior to starting the public education program enables school officials to deal proactively with any potential problems rather than react to public scrutiny.

Most school systems' budgets are stretched to the limit. Thus, a cooperative arrangement between the municipal water supplier and the school system is important to conducting a cost efficient lead testing program in the schools. Commercial labs may charge from $18 to $25 to analyze each sample. Given the number of fountains found in most schools, the costs for lead testing could rapidly become prohibitive.

In Raleigh, the Department of Public Utiliti[illegible]eloped the sampling protocols and provided personn[illegible] and laboratory analyses services to the school system. School personnel collected the samples; recorded the make, type, and age of the water fountains; and packaged the samples for delivery to the lab. The sampling techniques worked well and provided the school system with relevant information to address public questions before the public education program on lead in drinking water was announced.

Most school systems are concerned that fixtures and pipes in the plumbing system are the major contributors to high lead levels in the drinking water. In many cases, however, isolated drinking water fountains are the source of the problem, and problem fountains can be replaced without incurring a large expense. If a problem attributable to the plumbing system is found, flushing the system each school day may provide the most cost effective solution.

The focus of any education program on lead revolves around the potential harm posed to infants and children. The schools can be a valuable asset to a community awareness program on the issue of lead in drinking water. The fear of discovering a major problem should not deter school officials from participating in the education program. It is much better to actively and responsibly address problems associated with lead in drinking water in the schools through a self-administered testing and remediation program than to be forced to react to public pressure.

Information Sources

"Lead and Your Drinking Water." U.S. Environmental Protection Agency, Office of Water, Washington, DC (April 1987).

"Lead in School Drinking Water." EPA 570/9-89-001 (January 1989). U.S. Environmental Protection Agency, Office of Water, Washington, DC. (To obtain this document [GPO Stock Number 055-000-00281-9] write to: Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or telephone (202) 783-3238 to order using Visa or Mastercard.)

"Preventing Lead Poisoning in Young Children." A Statement by the Centers for Disease Control (1991). U.S. Department of Health and Human Services/Centers for Disease Control, Atlanta, Georgia.

"Reducing Lead in Drinking Water: A Benefit Analysis." EPA-230-09-86-019 (December 1986). U.S. Environmental Protection Agency, Office of Policy Planning and Evaluation, Washington, DC.

"The Nature and Extent of Lead Poisoning in Children in the United States: A Report to Congress." Agency for Toxic Substances and Disease Registry, Public Health Service, U.S. Department of Health and Human Services, Atlanta, Georgia. (July 1988)

"You and Your Drinking Water." EPA Journal (reprint). Volume 12, Number 7 (September 1986). U.S. Environmental Protection Agency, Office of Water, Washington, DC.

Environmental Protection Agency, 40 CFR 141 and 142 - Drinking Water Regulations: Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper; Final Rule (56 *FR* No. 110, June 7, 1991)

Exhibits

1. Action Plan
2. Water Testing Information Materials
3. Information Materials
4. Poster
5. Public Service Announcement

Exhibit 1
Lead in Drinking Water Action Plan

Strategy for Implementing the Lead in Drinking Water Public Education Program

Identify Your Audience

- ❑ General public
- ❑ Water customers
- ❑ High-risk groups (pregnant women, infants, and children)
- ❑ Non-English speaking customers and public

Organize a Task Force

Coordinate with local authorities, community organizations, and specialists who will be impacted by this education program and who can provide you access to a wide range of community resources:

- ❑ City, County, and state government officials (i.e., representatives of the City, County, or municipal council; the Mayor's, City Administrator's, or County Commissioner's office).
- ❑ City or county government agencies (i.e., the human resources, public affairs, health, and environmental protection or water quality departments; and agencies responsible for administering lead screening programs);
- ❑ Representatives of the local public school system;
- ❑ Representatives of public hospitals and/or clinics;

- ❑ Members of active community service organizations (such as the Head Start Program; the Women, Infants, and Children's Nutrition Program; family planning clinics; and the local welfare agencies);

- ❑ Civic groups (for instance, the Chamber of Commerce, neighborhood associations, and local chapters of organizations like the League of Women Voters and the Sierra Club); and

- ❑ Private sector (day-care centers, pediatricians, health care facilities or clinics, and hospitals).

Develop a Media Relations Program

- ❑ Identify contacts at local daily and weekly newspapers to whom you will send news releases;

- ❑ Identify contacts at local radio and television stations to whom you will send public service announcements;

- ❑ Identify a specialist in media rela to facilitate your media relations program (perhaps a rep: ative of your city public affairs department can assist you).

Develop a Water Testing Program

- ❑ Offer to sample, or arrange for a certified laboratory to sample, the tap water of any customer who requests it. You are not required to conduct or pay for the sampling and analysis. You must, however, publish the names and phone numbers of at least two laboratories in the area that customers can call to have their water tested for lead. This information must be published in the required water bill inserts, newspaper notices, and pamphlets and/or brochures (see below). The required public service announcement (see below) must provide the phone number of the city or water system for customers who wish to obtain information on testing. All customers must be informed of the results of the testing.

Develop the Required Public Education Materials

- ❑ Water testing information materials (Exhibit 2)
- ❑ Information materials: mailer or bill insert, pamphlet and/or brochure, notice in local newspapers (Exhibit 3)
- ❑ Poster (Exhibit 4)
- ❑ Public service announcement (Exhibit 5)

Deliver Required Education Materials to Targeted Members of Your Audience Within 60 Days of Failing to Meet the EPA Lead Action Level

General Public

- ❑ *Every twelve months*, submit the specified information to the editorial departments of the major daily and weekly newspapers circulated throughout the community served by the water system.
- ❑ *Every six months*, submit the specified public service announcement to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

Customers

- ❑ *Every twelve months*, insert notices in each customer's water utility bill containing the specified information and include the specified special alert on the water bill itself.

High-risk Groups

- ❑ *Every twelve months*, deliver pamphlets and/or brochures that contain the specified information to community facilities and organizations that serve pregnant women, infants, and children:
  - — Public schools and/or local school boards;
  - — City or county health departments;
  - — Women, Infants, and Children and/or Head Start Programs (if available);

- Public and private hospitals and clinics;
- Pediatricians;
- Family planning clinics; and
- Local welfare agencies.

Non-English Speaking Customers and Members of Public

❑ If your community includes a significant proportion of non-English speaking persons, translate all public education materials into the appropriate languages to ensure that non-English speaking customers and members of the public understand the information.

Fulfill Additional Requirements Specified in the Final Rule

❑ *By December 31 of each year*, submit a letter to the state demonstrating that public education materials meeting the content and delivery requirements of the final rule have been delivered to the appropriate audiences. This letter must include a list of all newspapers, radio and television stations, facilities, and organizations which have received the specified public education materials during the previous year.

Deliver the Public Education Program for as Long as Your System Exceeds the Designated Lead Action Levels

❑ Continue delivery of the public education program for as long as your water system exceeds the specified lead action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water, as identified by tap water samples collected in accordance with §141.86 of the final rule (56 *FR* 26555-26557, June 7, 1991).

❑ You may discontinue delivery of public education materials if your water system has met the EPA lead action level during the most recent six-month monitoring period conducted in accordance with §141.86 of the final rule.

Exhibit 2
Water Testing Information Materials

This exhibit provides two examples of information materials that address water testing. EPA developed the first protocol and the Clean Water Fund of North Carolina developed the second protocol. The Clean Water Fund materials address both copper and lead testing. For the purposes of this document, you only need to consider those portions that apply to lead testing.

Suggested Protocol for Homeowner Tap Sample Collection

These samples are being collected to determine lead and copper levels in your tap water. This sampling effort is required by the Environmental Protection Agency and is being accomplished through the cooperation of homeowners and residents.

Collect samples after an extended period of stagnant water conditions (i.e., no water use during this period) within the interior piping. Due to this requirement, the best time to collect samples is either early in the morning or in the evening upon returning from work. The collection procedure is described in more detail below.

1. Make arrangements in advance to set dates for sample kit delivery and pick-up by water department staff.

2. Achieve a minimum of 6-8 hours during which there is no water use prior to sampling. The water department recommends that either early mornings or evenings upon returning home are the best sampling times to ensure that the necessary stagnant water conditions exist.

3. Use kitchen or bathroom cold-water faucet for sampling. Place the sample bottle (open) below the faucet and gently open the cold water tap. Fill the sample bottle to the line marked "1000-mL" and turn off the water.

4. Tightly cap the sample bottle and place it in the sample kit provided. Please review the sample kit label at this time to ensure that all information contained on the label is correct.

5. If any plumbing repairs or replacement has been done in the home since the previous sampling event, note this information on the label, as provided.

6. Place the sample kit outside of the residence in the location of the kit's delivery in order that department staff may pick up the sample kit.

7. Results from this monitoring effort will be provided to participating customers when reports are generated for the State unless excessive lead and/or copper levels are found. In those cases, immediate notification will be provided (usually 10 working days from the time of sample collection).

Call _____ at _____ if you have any questions regarding these instructions.

SAMPLE LABEL: TO BE COMPLETED BY RESIDENT

Water was last used: Time:_____ Date:_____

Sample was collected: Time:_____ Date:_____

I have read the above directions and have taken a tap sample in accordance with these directions.

_____ Date:_____

Signature

Clean Water Fund of North Carolina

29 1/2 Page Avenue, Asheville, North Carolina 28801 - 704-251-0518

112 North Person Street, Raleigh, North Carolina 27601 919-832-7491

Municipal Lead & Copper Testing
Lead Service Line Protocol

Dear Friend:

Congratulations on your decision to have your tap water tested for lead and copper. As you may be aware, lead contamination is the most widespread health threat from U.S. drinking water supplies because of the large amounts of lead commonly used in pipe and solder.

Recent studies indicate that lead is even more harmful than previously believed to the brain and the rest of the nervous system (especially for young children but in adults as well). Fortunately, however, most lead contamination problems in drinking water can be alleviated simply by purging the plumbing line before drawing water for drinking or cooking. This is why we require two samples (FIRST DRAW and PURGED LINE) as part of our water testing service. Copper is also a toxic metal for which EPA has set a health advisory "action level" of 1300 parts per billion. Excessive copper intake has been linked with enzyme imbalances and degenerative spinal conditions.

In addition to testing your water for lead and copper, it is important to ensure that any plumbing repairs or new plumbing in your home does not expose you to lead contamination. We have found that some plumbing supply stores continue to sell lead solder without labels warning against its use on drinking pipes despite the fact that the U.S. Environmental Protection Agency has banned it for use with public water systems. If you are having repair work done, we suggest you instruct your plumber in writing to use lead-free materials, and check to see those instructions are followed.

Enclosed are two sample bottles for collecting your tap water. First, you must decide which of your taps you want tested (bathroom or kitchen). Second, fill in your name and address on the labels provided. These labels will identify your sample and will be used as address labels for sending your results, so please print carefully. Please follow the procedures given below for collecting the samples.

Procedure 1: First Draw Sample

This sample should be taken from the cold water tap sometime when the water has been standing in the plumbing lines for at least six hours and before the toilet is flushed or water is run for shaving or showering. Place a one-liter (or one-quart) container (preferably a plastic one, but glass is acceptable) under the faucet, and turn on the cold water to a slow trickle. When the container is full, turn off the tap and leave it off until you are ready to collect the second sample in Procedure 2. Now, stir the water in the container briefly with a plastic (NOT METAL) spoon or other stirrer. Pour water from the container into the *small sample bottle*. Be sure to fill the bottle to the very top so that little or no air will be present when the cap is screwed back on. Dry the outside of the bottle. Immediately attach the **"First Draw"** label to the sample bottle. (Make sure the bottle is dry or the label won't stick well.)

(please turn to back of page)

Procedure 2: Purged Line Sample for Testing Lead Service Lines

This sample should be taken after standing water between the tap and the lead service line has been purged through the plumbing system. Fully open the enclosed collapsible one-liter plastic container. Run the cold water tap at a high rate until there is a significant change in the temperature of the water. Then reduce the flow. Fill the one liter container. When it is full, replace the cap. Dry the outside of the container. Now, use the gummed label with the words **"Purged Line"** to label this bottle.

Enclosed is *UNC-A's Lead and Copper Analyses Form.* YOU MUST FILL OUT ALL STARRED ITEMS FOR YOUR SAMPLES TO BE ACCEPTED BY THE LAB. *Location where collected* and *location code* may have been filled out by your water utility. If those lines are blank, you should put your street address and the room in your home where you took the sample (for example: *000 Wherever Rd, kitchen tap*). By *location code* copy the number located on the top line of the bottle labels provided with your kit.

Now, take the two labeled bottles and place them in the box in which they arrived along with the *UNC-A Lead and Copper Analyses Form*. Be sure to fill out and enclose the *questionnaire*. PLEASE LEAVE BOTH LABELS WITH YOUR ADDRESS ON THEM STAPLED TO THE QUESTIONNAIRE. They will be the mailing labels used by UNCA to return your results to you. This will help ensure proper identification of your samples. Place the label saying "Lead and Copper Testing, Environmental Studies Program UNC-A, Asheville, NC 28804-3299" on the outside of the box.

Unless, you have been instructed otherwise by your water utility, seal the box, apply postage, and drop it in the mail. (First class postage costs $4.10. Generally Parcel Post is considerably cheaper but costs vary according to your location.) The laboratory results will be sent back to you within two to five weeks of receipt, along with information on what the results mean and whether any further action beyond line purging is recommended.

If you have any questions about how to take these samples or fill out the forms please call your local water utility.

You have just taken an important step toward protecting your family's health, and your participation in this project will help determine the extent of the lead and copper problem in your community.

Thanks for your interest.

Ginny Lindsey

Ginny Lindsey
Asheville Office

Exhibit 3
Information Materials

What you should know about ...

LEAD IN YOUR DRINKING WATER

A Publication of The Anytown Water Department — December 1993

To Our Customers:

The United States Environmental Protection Agency (EPA) and The Anytown Water Department 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 January 1996.

The program includes:

1) corrosion control treatment (treating the water to make it less likely that lead will dissolve into the water);

2) source water treatment (removing any lead that is in the water at the time it leaves our treatment facility); and

3) a public education program.

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. (Service lines, or connections, are the pipes that bring water from the water main in the street to your home. See drawing.)

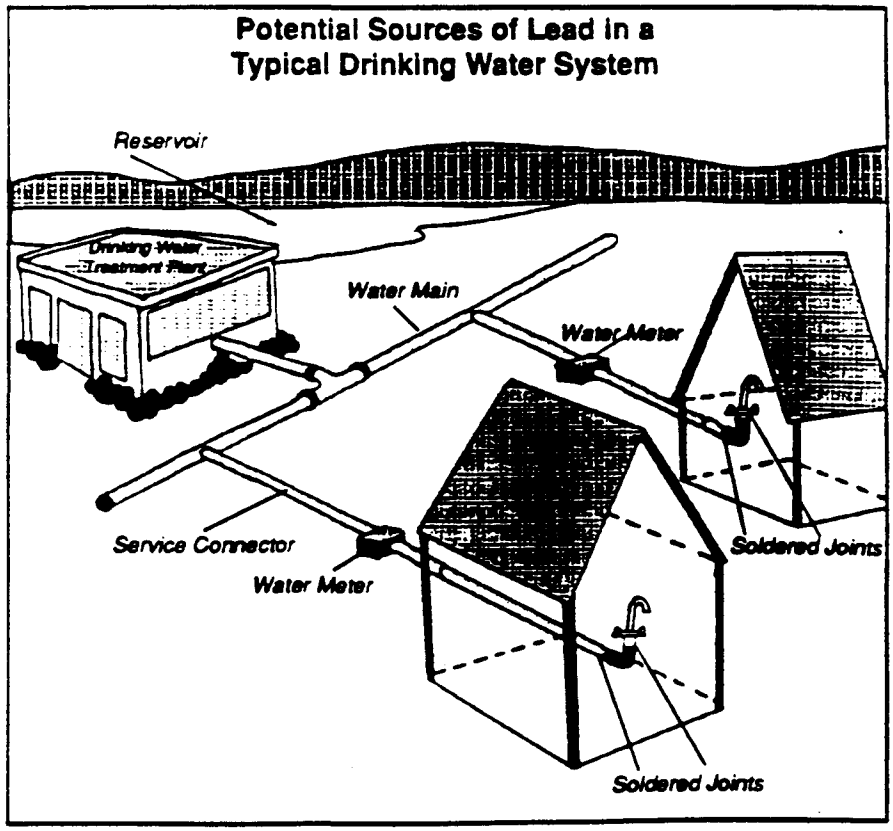
Remember—not every home has a lead contamination problem. Most people have low levels of lead in their drinking water. But because you cannot see, taste, or smell lead, testing the water is the only way to know for sure whether or not you have a problem.

We can help. In this newsletter, we tell you how and where to get your water tested. We also explain the simple steps you can take to protect yourself and your family by reducing your exposure to lead from drinking water.

If you have any questions about how we are carrying out the requirements of the lead regulation, or want more information about what you can do, please give us a call at 555-1234.

John Doe
Water Superintendent
Anytown Water Department

Potential Sources of Lead in a Typical Drinking Water System



LEAD IN OUR ENVIRONMENT

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 (especially under age 6), pregnant women, and their fetuses. Amounts of lead that won't hurt adults can slow down normal mental and physical development in the growing bodies of children. In addition, a child at play often comes into contact with sources of lead contamination—like dirt and dust—that rarely affect an adult. If a child puts dirty fingers into his mouth (as most children do), some lead may be absorbed into the child's system. It is important, therefore, to wash children's hands and toys often and to try to make sure they only put food in their mouths.

Lead in Drinking Water

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. EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

How Lead Enters Our Water

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like 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.

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

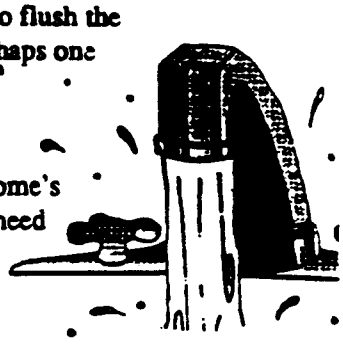
Steps You Can Take in the Home to Reduce Exposure to Lead in Drinking Water

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 newsletter. For more information on having your water tested, please call 555-1234.

water test indicates that the drinking water dra[illegible]m a tap in your home contains lead above 15 p[illegible] or 0.015 mg/L, then you should take the following precautions:

1. Flush Your System. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. Flushing usually uses less than one or two gallons of water and costs less than 23 cents per month.

To flush, let the water run from the tap before using it for drinking or cooking any time 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.



To conserve water, fill a couple of bottles with water after flushing the tap, and whenever possible use the first flush water to wash dishes or water plants.

If you live in a high-rise building, letting the water flow before using it may not lessen your risk from lead. This is because high rise 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. Use only cold water for cooking and drinking. 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 solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced. To do this, remove the faucet strainers from all taps and run the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

4. Identify and replace lead materials with lead-free ones. 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 he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify your State Department of Environmental Protection about the violation.

5. Determine whether or not the service line that connects your home or apartment building 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 Anytown Engineering Department. 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 a record of the materials located in your 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 line. If the line is only partially controlled by the Anytown Water Department, we are required to provide you with information on how to replace your portion of the service line, and offer to replace that portion of the line at your expense. We must also take a follow-up tap water sample within 14 days of the replacement. 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.

Additional Steps

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:

7. 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.

8. Purchase bottled water for drinking and cooking.

FOR MORE INFORMATION

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:

County Public Utilities Department at 555-2345
can provide you with information about your community's water supply, and a list of local laboratories that have been certified by the State for testing water quality.

The Anytown Engineering Department at 555-1366
can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home.

Our State Department of Public Health at 555-7788 or the Anytown Health Department at 555-3333
can provide you with information about the health effects of lead and tell you how and where you can have your child's blood tested.

The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead.

Testing Laboratories
555-4444

Test Rite Laboratories
555-5555

Water Testing Laboratories
555-8888

DO YOU HAVE LEAD IN YOUR DRINKING WATER?

An Important Message from Your Water Supplier

Anytown Water Department
100 Main Street
Anytown, USA 00000

stamp

John Q. Consumer
100 Walnut Street
Anytown, USA 00000

Exhibit 4
Poster

This exhibit provides two posters. The first is a general poster-size legal notice with mandatory language. It can be ordered in full size from the Safe Drinking Water Hotline at 1-800-426-4791 or by writing to the Office of Ground Water and Drinking Water Resource Center, U.S. Environmental Protection Agency, 401 M Street, SW (WH-550A), Washington, DC 20460.

The second poster EPA developed for the Raleigh Pilot. It does not contain required language and thus cannot be used by water systems that exceed the lead action level, but has been included as an example of a communications supplement to the public.

LEAD In Drinking Water

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) and [insert name of water supplier here] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in this 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].

[illegible]

[illegible] treatment: treating the water to make it less likely that lead will dissolve into the water;

2. [illegible] water treatment: removing any lead that is in the water at the time it leaves our treatment [illegible]

[illegible]

[illegible] contributes lead [illegible] after we have completed the comprehensive treatment program. If you [illegible] the lead regulation, please give us a call at [insert water system's phone number].

[illegible] you and your family by reducing your exposure to lead in drinking water.

HEALTH EFFECTS OF LEAD

LEAD IS A COMMON METAL [illegible]

[illegible] can cause damage [illegible] the greatest risk [illegible] children [illegible] pregnant women and [illegible] can slow down [illegible] mental and physical [illegible] [illegible] may be absorbed into the [illegible] It is important therefore to wash children's hands and toys often and to try to make sure they only put food in their mouths.

LEAD IN DRINKING WATER

LEAD IN DRINKING WATER [illegible] concentrated [illegible]

[illegible] with water. EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

HOW LEAD ENTERS OUR WATER

LEAD IS UNUSUAL among drinking water contaminants [illegible] water supplies [illegible] lead enters drinking water [illegible] 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.

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

Water Supplier
Identification

Address
Phone

STEPS YOU CAN TAKE IN THE HOME To Reduce Exposure to Lead in Drinking Water

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 bottom of this poster. For more information on having your water tested, please call [insert phone number of water system].

If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb or 0.015 mg/L, then you should take the following precautions:

1. FLUSH YOUR SYSTEM Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. Flushing usually uses less than one or two gallons of water and costs less than [insert a cost estimated based on flushing two times a day for 30 days] per month.

To flush, let the water run from the tap before using it for drinking or cooking any time 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. To conserve water, fill a couple of bottles with water after flushing the tap, and whenever possible use the [illegible] water to wash dishes o[illegible]

Unfortunate[illegible] live in a high-rise build[illegible] the water flow before [illegible] may not lessen your risk from lead. This is because high rise 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. USE ONLY COLD WATER FOR COOKING AND DRINKING 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 SOLDER AND DEBRIS from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced. To do this, remove the faucet strainers from all taps and run the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

4. IDENTIFY AND REPLACE LEAD MATERIALS WITH LEAD-FREE ONES 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 he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify your State [insert name of state department responsible for enforcing the Safe Drinking Water Act] about the violation.

5. FIND OUT WHETHER THE SERVICE LINE THAT CONNECTS YOUR HOME OR APARTMENT BUILDING 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 home should also maintain a record of the materials located in your distribution system. If the service line that connects your dwelling to the water main contains more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the line. If the line is only partially controlled by the [insert name of city, county, or water system that controls the line], we are required to provide you with information on how to replace your portion of the service line, and offer to replace that portion of the line at your expense. We must also take a follow-up tap water sample within 14 days of the replacement. 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.

IF LEAD LEVEL PERSISTS

IF 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:

7. PURCHASE OR LEASE A HOME TREATMENT DEVICE

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 treatment device before and after installing the unit.

8. PURCHASE BOTTLED WATER FOR DRINKING AND COOKING

FOR MORE INFORMATION

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 of city or county department of public utilities] [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 the State for testing water quality.

[insert the name of city or county department that issues building permits]

[insert phone number] can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home.

[insert the name of the State Department of Public Health] [insert phone number]

or the

[insert the name of the city or county health department] [insert phone number] can provide you with information about the health effects of lead and tell you how and where you can have your child's blood tested.

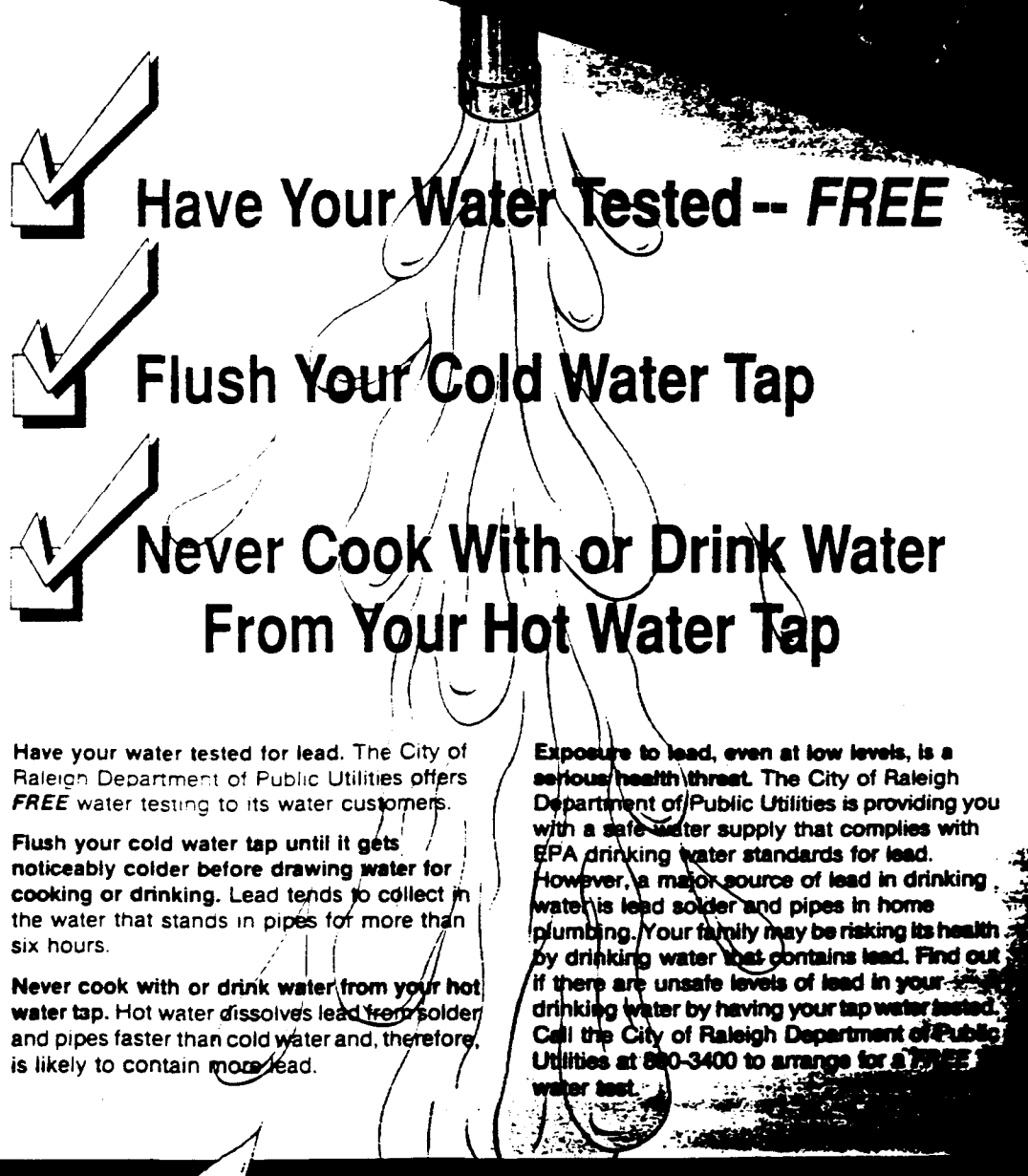
The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead.

[insert names and phone numbers of at least two laboratories.]

LAB ONE

LAB TWO

GET THE LEAD OUT



Have Your Water Tested -- *FREE*

Flush Your Cold Water Tap

Never Cook With or Drink Water From Your Hot Water Tap

Have your water tested for lead. The City of Raleigh Department of Public Utilities offers ***FREE*** water testing to its water customers.

Flush your cold water tap until it gets noticeably colder before drawing water for cooking or drinking. Lead tends to collect in the water that stands in pipes for more than six hours.

Never cook with or drink water from your hot water tap. Hot water dissolves lead from solder and pipes faster than cold water and, therefore, is likely to contain more lead.

Exposure to lead, even at low levels, is a serious health threat. The City of Raleigh Department of Public Utilities is providing you with a safe water supply that complies with EPA drinking water standards for lead. However, a major source of lead in drinking water is lead solder and pipes in home plumbing. Your family may be risking its health by drinking water that contains lead. Find out if there are unsafe levels of lead in your drinking water by having your tap water tested. Call the City of Raleigh Department of Public Utilities at 890-3400 to arrange for a FREE water test.

For More Information Call
City of Raleigh Department of Public Ut
at 890-3400

Exhibit 5
Lead in Drinking Water
Public Service Announcement

Section 141.85(b) of the final rule specifies that a water system must include the following language in all public service announcements submitted to television and radio stations for broadcasting as part of a public education program on lead in drinking water:

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

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).