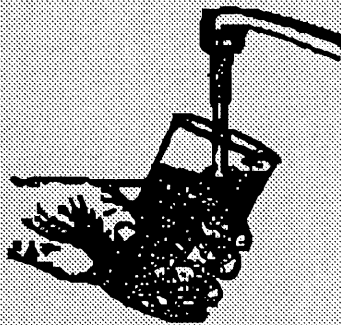
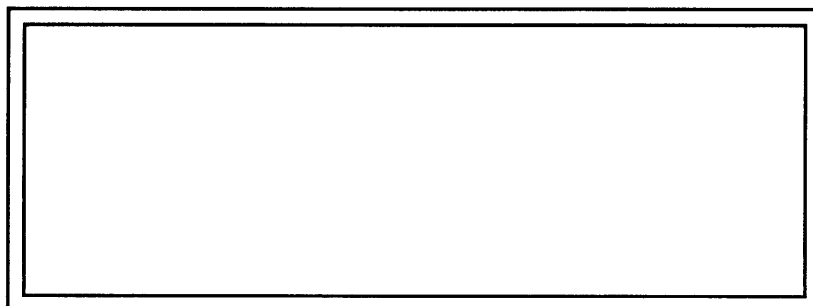


**Public Notification Handbook
for
Public Water Systems**



**Office of Water
United States Environmental Protection Agency
Washington, D.C.**



ACKNOWLEDGEMENT

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Introduction

Who Should Read This Handbook

This **Handbook** is for owners, operators, and managers of **public water systems**. A public water system is a system for the provision of piped water for human consumption, if the system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days of the year. (See **Section 2** of this **Handbook** for more information.)

Who Should I Call If I Have Questions?

This **Handbook** discusses federal public notification regulations only. Public water systems are required to comply with the federal regulations from the effective date of the rule. The federal regulations went into effect on April 28, 1989. States with primacy are required to adopt regulations no less stringent than the federal requirements. At the time of publication of this **Handbook**, some states have not yet adopted the revised public notification regulations. In the interim, you should check with your state primacy agency which can answer your questions or put you in contact with someone who can.

In order to provide you with the most current information on EPA rule development and to respond to any questions you may have concerning federal drinking water requirements, the EPA Office of Drinking Water in Washington, D.C. has established a toll-free number.

Safe Drinking Water Hotline



Hours:
8:30 am–4:30 pm
EST
Monday–Friday
1-800-426-4791

In Alaska and the District of Columbia
1-202-382-5533



Overview

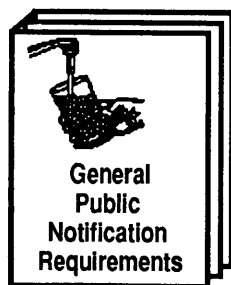
With the enactment of the Safe Drinking Water Act (SDWA) in 1974, Congress required that public drinking water systems notify their customers when drinking water standards were violated. EPA promulgated regulations in 1975 to implement the public notification provision. These requirements were in place from that date until the recent revision prompted by the 1986 SDWA Amendments.

On June 19, 1986, Congress amended the Act and, among other things, directed the Environmental Protection Agency (EPA) to revise the public notification requirements. Congress wanted those changes “to provide for different types and frequencies of notice based on the differences between violations” and to “take into account the seriousness of any potential adverse health effects which may be involved.” In so doing, Congress reaffirmed its position that public notification is an important responsibility of public water systems.

In response to this Congressional mandate, on October 28, 1987, EPA published its revised, general public notification requirements, **changing the way public drinking water supplies are to issue notice**. Those requirements went into effect on **April 28, 1989**.

Since the law emphasizes that public notification is an important responsibility of water systems, this book is designed to help people who own, operate, or manage a public water supply to understand and comply with the revised requirements.

Purpose of Public Notification



The primary purpose of public notification is to **inform consumers of any potential adverse health effects** related to the drinking water being supplied to them, and what steps consumers can take to minimize the impact. Also, Congress requires public notification to provide information to consumers that will encourage them to support the expenditures it will take to provide safe

water. The House Report (Safe Drinking Water Act, July 10, 1974) states:

"The purpose of this notice requirement is to educate the public as to the extent to which public water systems serving them are performing inadequately in light of the objectives and requirements of this bill. Such public education is deemed essential by the Committee in order to develop public awareness of the problems facing public water systems...and to advise the public of potential or actual health hazards."

So, Congress wants you to use public notification to **do more than just announce violations**. Congress wants you to **educate** consumers. It is in your best interest to communicate with your customers.

Purpose and Content of this Handbook

The purpose of this handbook is to take you, step by step, through the process of public notification. It tells you:

- What a violation consists of;
- What notices are necessary for each violation, and when they must be provided;
- The kind of information that should be included in a public notice;
- The different types of notices to be provided, along with examples of each;
- Examples of how notices should be tailored to fit specific circumstances; and,
- The special circumstances related to fluoride in water.



States with **primacy** may add additional requirements or elect to give the notice themselves. **The primacy agency is the agency that is responsible for regulation of public water systems in states and on Indian lands. In most cases, this is the state agency that regulates public water systems. In states and on Indian lands where no designated agency administers the public drinking water program, EPA is the primacy agent. Appendix I** contains a list of EPA regional contacts. A list of state contacts is given in **Appendix J**.

EPA will continue to publish standards, including mandatory health effects language to be used in public notices, for contaminants found in drinking water. The design of this notebook (three hole punched) allows for copies of additional EPA requirements, and pertinent state statutes and regulations, to be inserted in the handbook for easy reference.

Development of New and Revised Drinking Water Regulations

Every public water supply in the country must meet the National Primary Drinking Water Regulations (NPDWR). Currently, the NPDWR contain standards for 30 contaminants; however, the 1986 Amendments to the Safe Drinking Water Act require the regulation of many more contaminants. As an owner, operator, or manager of a public water system, you will want to be informed as to what regulations are being developed and when they will be published. EPA publishes proposed and final regulations in the **Federal Register**. Please call the Safe Drinking Water Hotline (1-800-426-4791 or for Alaska and Washington, D.C., 202-382-5533) for the Status of EPA rule development.

SECTION 1 Violations for Which Public Notification is Required

- Types of Violations—Six Types
- Summary of Public Notification Requirements

Types of Violations—Six Types

The Safe Drinking Water Act (SDWA) requires owners or operators of public water systems to notify the persons they serve if certain violations of the *National Primary Drinking Water Regulations* (NPDWRs) or certain other specified events occur.

For the sake of simplicity, we refer to all these events as “violations” throughout this handbook.

The six types of violations are:



Failure to comply with an applicable maximum contaminant level (MCL)

The NPDWRs establish certain levels of contaminants, Maximum Contaminant Levels (MCLs), that are acceptable in drinking water under monitoring conditions specific for each contaminant. When analysis reveals that the water supply contains levels of contaminants higher than those amounts, the water supply is in violation of the applicable MCL.



Failure to comply with a prescribed treatment technique

Where EPA cannot set a MCL for a particular contaminant because it is not economically or technically feasible to determine the level of that contaminant in drinking water (for example, viruses), EPA can require a treatment technique in lieu of a MCL. Failure to meet a prescribed treatment technique requirement is a violation that necessitates notification of persons served by the system.



Failure to perform water quality monitoring as required by the regulations

The NPDWRs set standards for the frequency with which waters must be tested. They also establish the proper locations for sampling. Failure to meet these requirements is a violation and the system must notify the public.



Failure to comply with testing procedures as prescribed by a NPDWR

For a drinking water analysis to be valid under the SDWA, it must be performed according to the methods prescribed in the NPDWRs. Failure to comply with the established testing procedures is a violation of the NPDWRs and public notification is required.



Issuance of a variance or an exemption

When EPA or a state agency allows a public water system to vary from the established standards, the system must let the public know.



Failure to comply with the requirements of any schedule that has been set under a variance or exemption

When EPA or the state allows a public water system a variance or an exemption from a drinking water standard, it also establishes a schedule for coming into compliance with that standard. If the water system does not meet that schedule, it is in violation and must notify the public.

Differences among violations call for different kinds of public notice. If the violation is more serious, then the requirements for public notice are more stringent. To differentiate between the violations—and the resulting public notice requirements—EPA has divided violations into **Tier 1** and **Tier 2** categories based on the seriousness of the violation. The two tiers of violations are explained in **Section 2**. The requirements also vary according to the type of public water system. A **Summary of Public Notification Requirements** is given on the following page.

Summary of Public Notification Requirements

Public Notification Requirements

Violation Category Type	Mandatory Health Effects Information Required (All PWSs)	Notice to New Billing Units (CWSs Only)	Type of PWS	Time Frame Within Which Notice Must be Given (Box Indicates time frame for initial notice, and is followed by the frequency of repeat notice until the violation is resolved)						
				Violation	72 hours	7 days	14 days	45 days	3 months	Annual
TIER 1	1. MCL 2. Treatment Technique 3. Variance or Exemption Schedule Violation	Yes Yes Yes	Community	Acute Violations:						
				TV and Radio	No Repeat					
				Newspaper ¹						No Repeat
				Mail or Hand Delivery ²						Quarterly Repeat
				Non-Acute Violations:						
				Newspaper ¹						No Repeat
			Non-Community ³	Mail or Hand Delivery ²						Quarterly Repeat
				Option 1:						
				Notice as for Community Water Systems						
				or						
TIER 2	1. Monitoring ⁴ 2. Testing Procedure 3. Variance or Exemption Issued	No No Yes	Community	Option 2:						
				Acute Violations:						
			Posting or Hand Delivery	Continuous/Quarterly Repeat ⁵						
			Non-Community ³	Non-Acute Violations:						
				Posting or Hand Delivery						Continuous/Quarterly Repeat ⁵
				Option 1:						
				Newspaper ¹						
				Quarterly Repeat by Mail or Hand Delivery						
				Option 2:						
			Acute Violations:							
Posting or Hand Delivery										
Continuous/Quarterly Repeat ⁵										

Footnotes

¹If no newspaper of general circulation is available, posting or hand delivery is required as specified in §141.32(a)(3)(i) and §141.32(b)(3)(i).

²May be waived in accordance with §141.32(a)(1)(ii).

³Includes both transient non-community public water systems and non-transient non-community public water systems.

⁴Less frequent notice (but no less than annual) to be required as in §142.16(a).

⁵Continuous repeat required if posting is used; quarterly repeat required if hand delivery is used.



The regulations cited above (e.g., §141.32(a)(3)(i)), can be found in Appendix F. Further explanation of footnotes can be found in Appendix G.

SECTION 2 Different Types of Violations: How You Must Respond

- **Levels of Violation**
 - Tier 1 Violations
 - Tier 2 Violations
- **Types of Public Water Systems**
- **Community Water Systems**
 - Notice to New Billing Units
 - Tier 1 Violations—Acute
 - Tier 1 Violations—Non-Acute
 - Tier 2 Violations
- **Non-Community Water Systems**
 - Tier 1 Violations
 - Tier 2 Violations

The revised general public notification requirements define two levels of violations, each with its own set of public notification requirements. The requirements also vary according to the type of public water system, and are summarized in the information and charts that follow. For the complete text of the general public notification requirements, see **Appendix F**.

Levels of Violation

The requirements divide violations into two types.

Tier 1 Violations

The more serious are **Tier 1** violations, which require substantial efforts at public notification. **Tier 1** violations include:

- **Failure to comply with an MCL**
- **Failure to comply with a treatment technique requirement established in lieu of an MCL**
- **Failure to comply with a schedule prescribed under a variance or exemption**

Tier 2 Violations

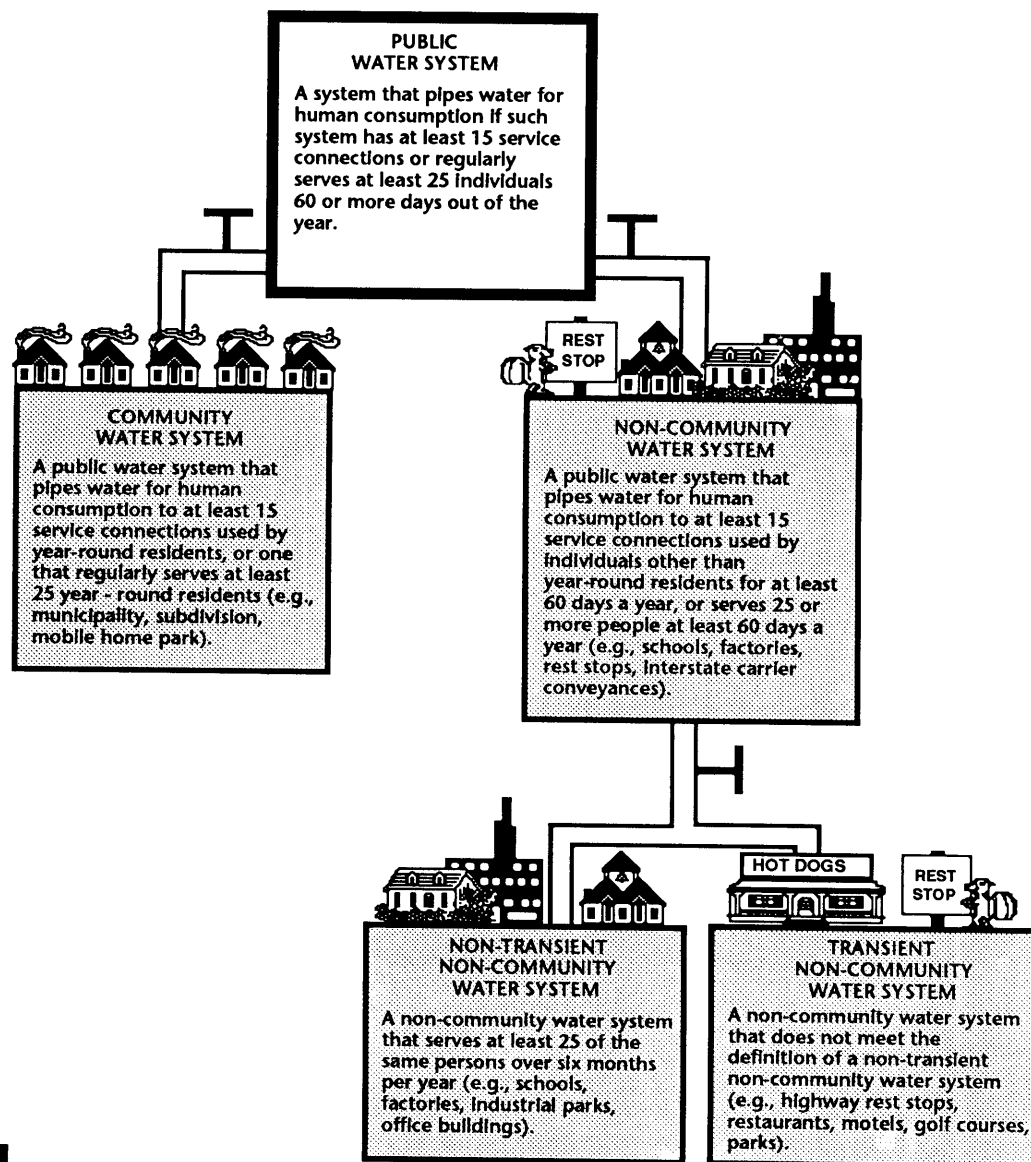
Tier 2 violations are less serious, and have simpler public notification requirements. **Tier 2** violations include:

- **Failure to comply with monitoring requirements**
- **Failure to comply with specified testing procedures**
- **Operating under a variance or an exemption**

While operating under a variance or an exemption is not really a violation, for the sake of simplicity, we refer to such events as “violations” throughout this handbook.

Types of Public Water Systems

A "public water system" has 15 or more service connections or regularly serves at least 25 people 60 or more days a year. A system that serves water 60 or more days a year is considered to "regularly serve" water. Public water systems can be publicly or privately owned. Public water systems are subdivided by regulation into two major categories: **community** and **non-community** water systems. This division is based on the type of consumer served and the frequency the consumer uses the water. Basically, a **community system** serves water to a residential population, whereas a **non-community system** serves water to a non-residential population. The **non-community** category is further broken down into two categories: **non-transient non-community** water systems and **transient non-community** water systems.



Contact your primacy agent if you are not sure what category you are in. The public notification regulations apply based on whether you are a community, non-transient non-community, or transient non-community water system.

WHEN IN DOUBT, ASK!

Community Water Systems: Notification Requirements

Notice to New Billing Units

In addition to complying with the public notification requirements for Tier 1 violations, community water systems must provide notice to new billing units of **any existing Tier 1 acute and non-acute** violations. A copy of the most recent public notice must be given to all new billing units or hookups prior to or at the time service begins.

Tier 1 Violations—Acute—Community Water System

If the violation is an acute violation, the system must follow a three-step procedure. Acute violations are those which involve an acute risk to human health. Current acute violations are listed in §141.32(a)(1)(iii) of the general public notice regulations (**Appendix F**) and currently include (1) any violations specified by the State as posing an acute risk to human health, (2) violations of the MCL for nitrate, (3) violations of the MCL for total coliforms when fecal coliforms or *E. coli* are present in the water distribution system,* and (4) occurrences of a waterborne disease outbreak in an unfiltered system.* Additional acute violations will be defined as new regulations are promulgated.

*[Effective December 31, 1990, as specified by the Surface Water Treatment and Total Coliform Regulations of June 29, 1989.]

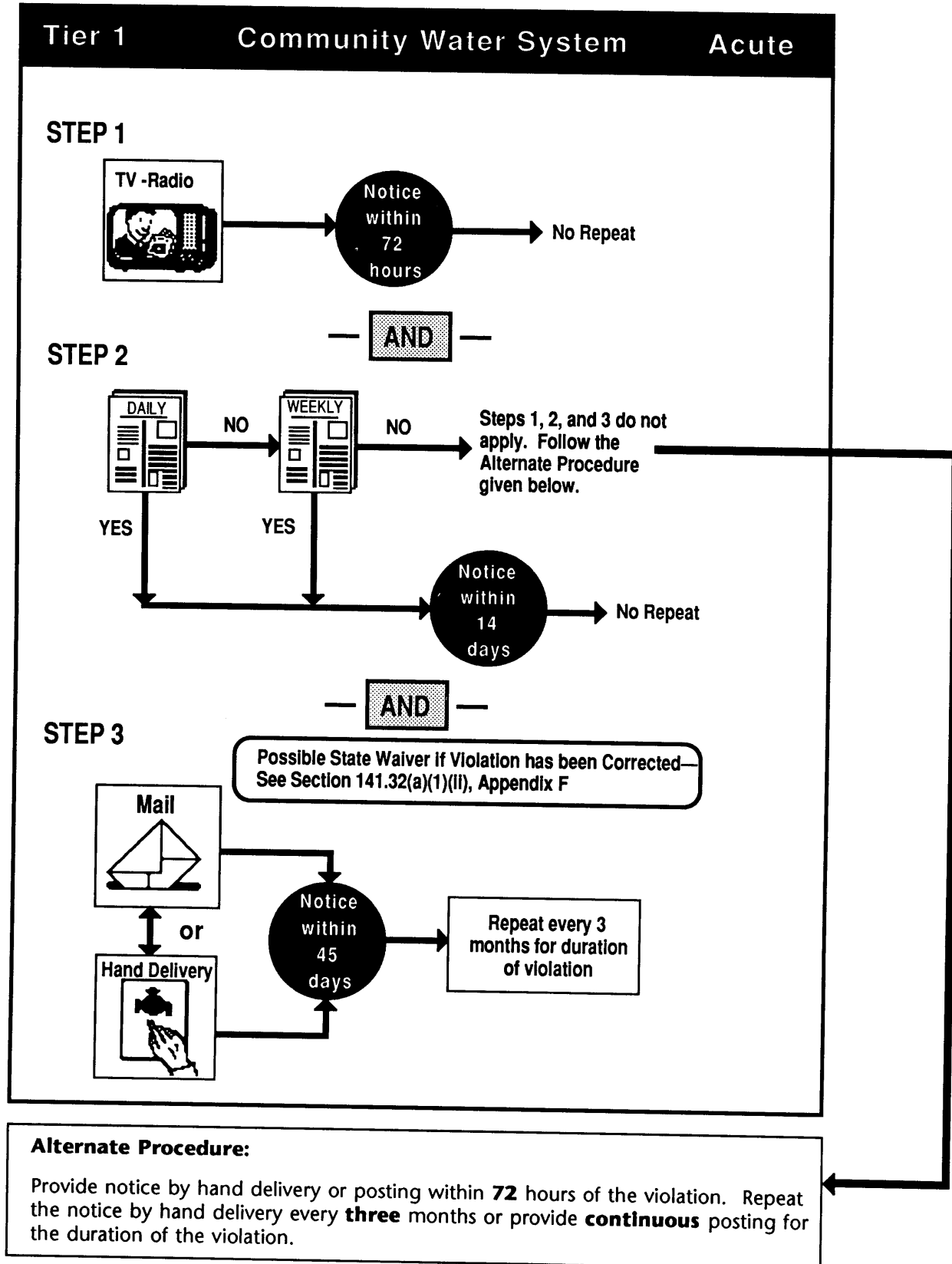
The steps are as follows:

- Step 1** Deliver notice to the principal television and radio stations serving the area within **72** hours following the violation.
- and**
- Step 2** Provide notice within **14** days of the violation through a daily general circulation newspaper (if none, then through a weekly newspaper) serving the area. If there is no newspaper circulation, follow the **alternate procedure** below.
- and**
- Step 3** Provide notice by direct mail, either with the water bill or in a separate letter, or by hand delivery, within **45** days of the violation. **Repeat this notice every three months as long as the violation continues. The requirement for notice by mail or hand delivery may be waived by the state in writing if the violation is corrected within 45 days of the violation. See Appendix F, Section 141.32(a)(1)(II) for waiver requirements. If no waiver is issued, the public notice must be given even if the violation has been corrected within the 45-day period. A supplier cannot forgo the notice on the assumption that the state will waive the notice.**

Alternate Procedure:

Use this procedure only if there is no daily or weekly newspaper serving the area served by your system. **Instead of following steps 1, 2, and 3** above, provide notice by hand delivery or by posting within **72 hours** of the violation. **Repeat the notice by hand delivery every three months or provide continuous posting for the duration of the violation.**

If your area is served by a daily or weekly newspaper, follow this procedure.



Tier 1 Violations—Non-Acute—Community Water System

For community water systems served by a daily or weekly newspaper, any **Tier 1 non-acute violation** requires the following two-step procedure. For communities not served by a daily or weekly newspaper, an alternate procedure is described below. The steps are as follows:

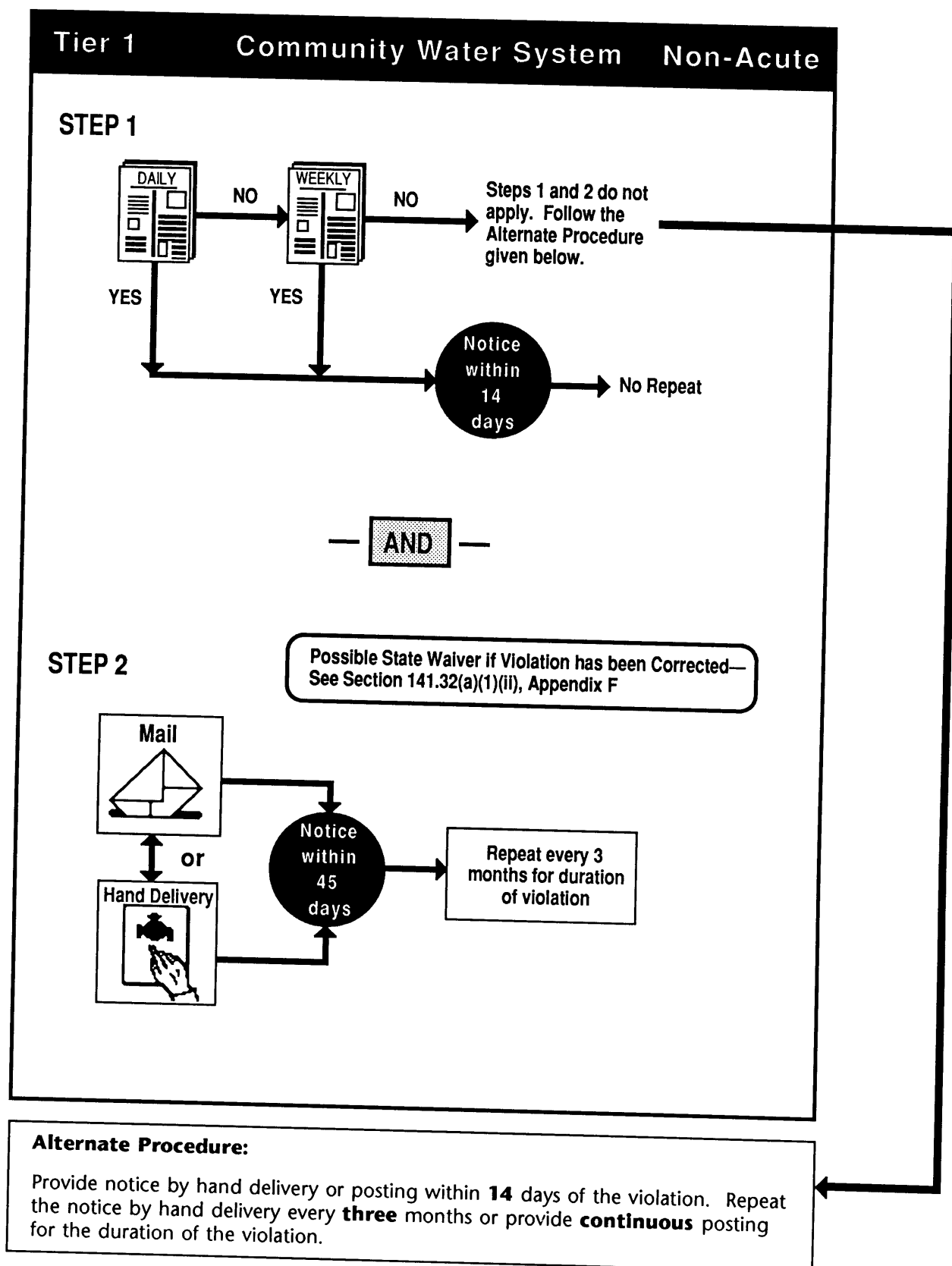
- Step 1** Provide notice within **14** days of the violation through a daily general circulation newspaper (if none, then through a weekly newspaper) serving the area. If there is no newspaper circulation, follow the **alternate procedure indicated.**
- and**
- Step 2** Provide notice by direct mail, either with the water bill or in a separate letter, or by hand delivery, within **45** days of the violation. **Repeat this notice every three months as long as the violation continues. The requirement for notice by mail or hand delivery may be waived by the state in writing if the violation is corrected within 45 days of the violation. See Appendix F, Section 141.32(a)(1)(ii) for waiver requirements. If no waiver is issued, the public notice must be given even if the violation has been corrected within the 45-day period. A supplier cannot forgo the notice on the assumption that the state will waive the notice.**

Alternate Procedure:

Use this procedure only if there is no daily or weekly newspaper serving the area served by your system. **Instead of following steps 1 and 2 above, provide notice by hand delivery or by posting within 14 days of the violation. Repeat the notice by hand delivery every three months or provide continuous posting for the duration of the violation.**

REMEMBER THAT COMMUNITY WATER SYSTEMS MUST NOTIFY NEW CUSTOMERS OF EXISTING TIER 1 VIOLATIONS PRIOR TO THE TIME, OR AT THE TIME, SERVICE BEGINS.

If your area is served by a daily or weekly newspaper, follow this procedure.



Tier 2 Violations—Community Water System

Generally **Tier 2** violations are less severe than Tier 1, so the frequency of public notification is generally less. For communities served by a daily or weekly newspaper, any **Tier 2** violation requires the following two-step procedure. For communities not served by a daily or weekly newspaper, an **alternate procedure** is described below. The steps are as follows:

- Step 1** Provide notice through a daily, general circulation newspaper (if none, then through a weekly newspaper) serving the area within **three** months of the violation.
- and**
- Step 2** Provide notice by direct mail, either with the water bill or in a separate letter, or by hand delivery, within three months of the initial notice. **Repeat this notice every three months as long as the violation continues.**

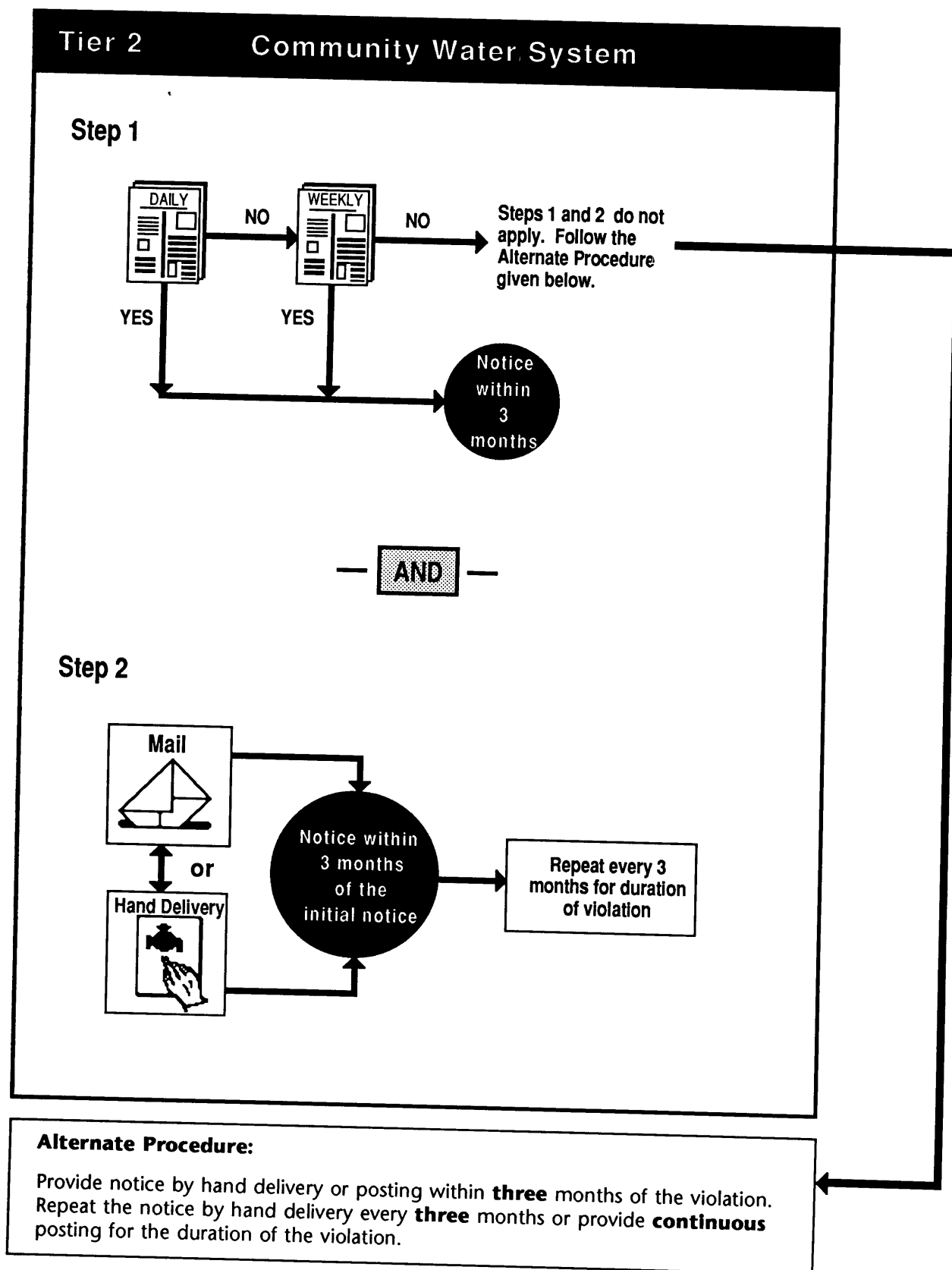
Alternate Procedure:

Use this procedure only if there is no daily or weekly newspaper serving the area served by your system. **Instead of following the procedure above**, provide notice by hand delivery or posting within **three** months of the violation. **Repeat the notice by hand delivery every three months or provide posting for the duration of the violation.**



States have the option to authorize less frequent notice for minor monitoring violations. To do this, the state's program revision to adopt the revised public notification rules must include rules specifying either: (1) which monitoring violations are minor and the frequency of public notice for such violations; or (2) criteria for determining which monitoring violations are minor and the frequency of public notification for such violations. However, notice for minor monitoring violations must be given **no later than annually** and the state program revisions must first be **approved by EPA before they can be implemented**. Until EPA approves the reduced monitoring frequency, the requirement for more frequent notice must be followed. **Contact your primacy agent for more information.**

If your area is served by a daily or weekly newspaper follow this procedure.

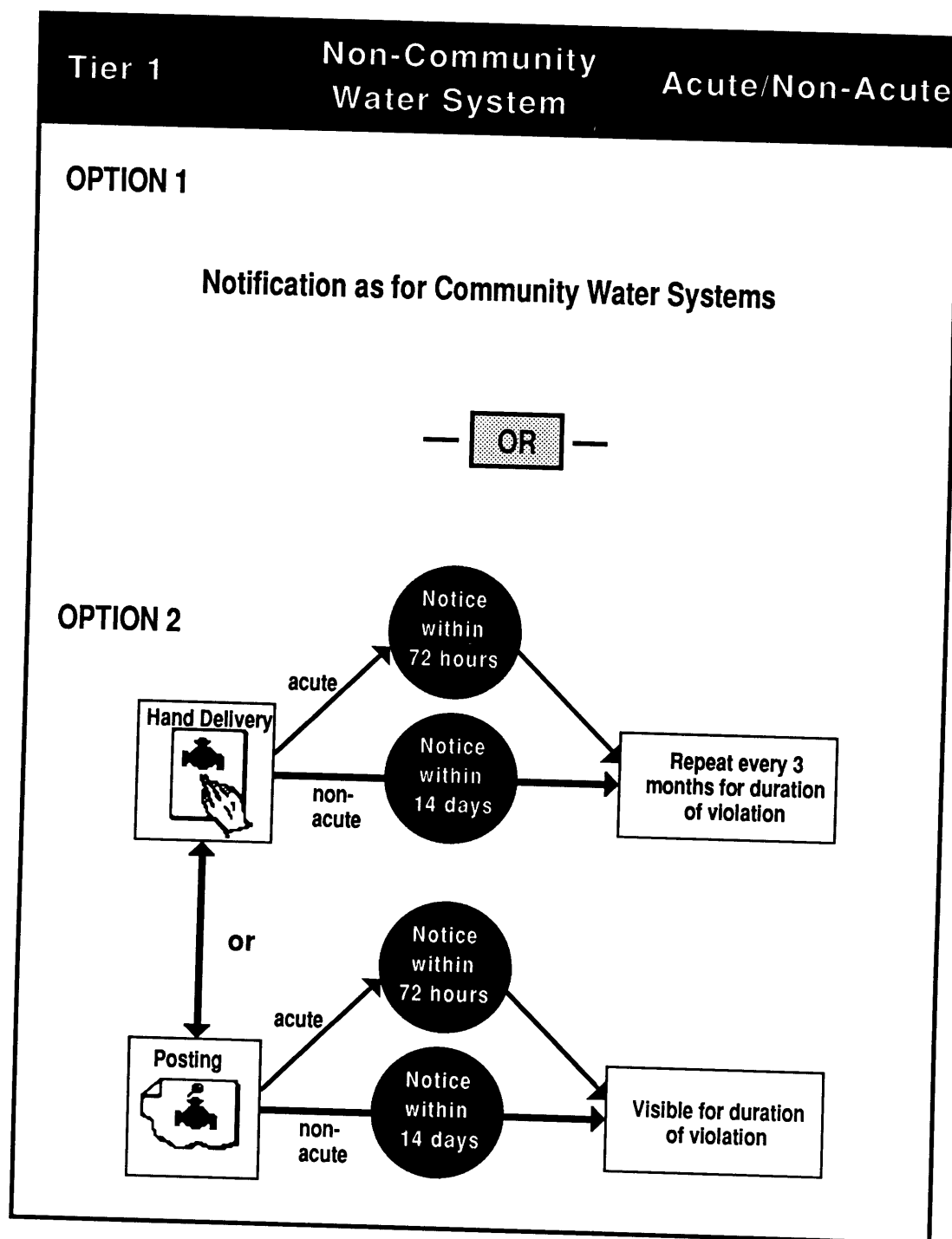


Non-Community Water Systems: Notification Requirements

Tier I Violations—Acute and Non-Acute—Non-Community Water System

Owners and operators of non-community water systems—both **transient non-community** water systems and **non-transient non-community** water systems—have **two options** for public notification of a **Tier 1** violation (either acute or non-acute).

- Option 1** Follow the same requirements as set for community water systems with Tier 1 violations described earlier.
- or**
- Option 2** Provide notice by hand delivery or continuous posting within 72 hours for an acute violation or **14** days for a non-acute violation. **Posting must continue for the duration of the violation. Notice by hand delivery must be repeated at least every three months for as long as the violation exists.**

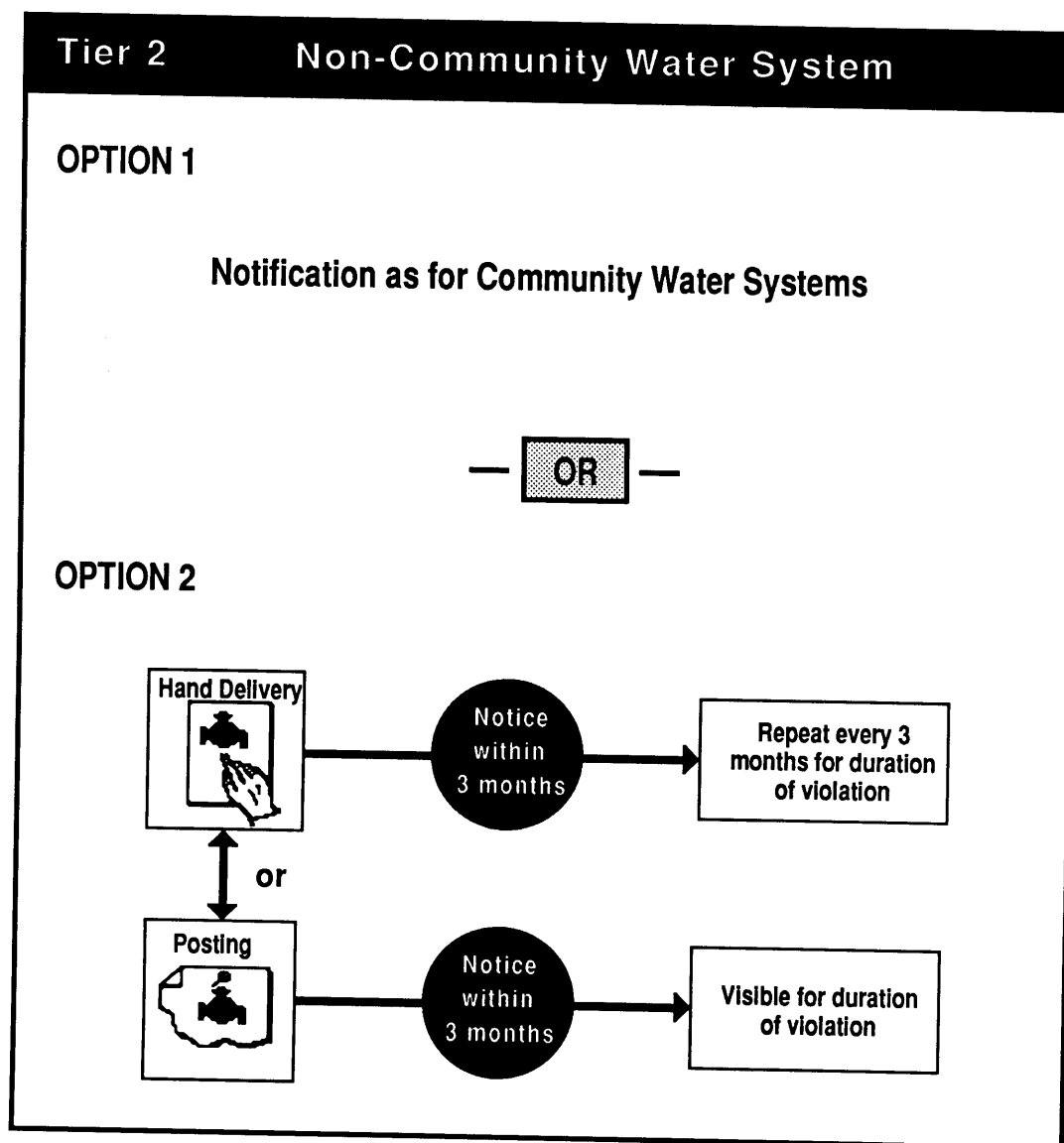


Posting is considered especially important where water is supplied to such areas as campgrounds, service stations, and highway rest-stops, where users are transient and would probably not be aware of previous notice in newspapers or broadcasts.

Tier 2 Violations—Non-Community Water System

The requirements for **Tier 2** violations provide two options for public notification by a non-community water system.

- Option 1** Follow the same requirements as set for community systems with **Tier 2** violations described earlier.
- or**
- Option 2** Provide notice by hand delivery or continuous posting within **three** months of the violation. **Posting must continue for the duration of the violation. Notice by hand delivery must be repeated at least every three months as long as the violation exists.**



States have the option to authorize less frequent notice for minor monitoring violations. To do this, the state's program revision to adopt the revised public notification rules must include rules specifying either: (1) which monitoring violations are minor and the frequency of public notice for such violations; or (2) criteria for determining which monitoring violations are minor and the frequency of public notification for such violations. However, notice for minor monitoring violations must be given **no later than annually** and the state program revisions must first be **approved by EPA before they can be implemented**. Until EPA approves the reduced monitoring frequency, the requirement for more frequent notice must be followed. **Contact your privacy agent for more information.**

SECTION 3 Information That Must be Included in a Public Notice

- Information to be Included—12 Types
- Checklists for General Public Notification Requirements
- Guidelines for Presentation of Information

Information to be Included—12 Types

The public notification regulations specify that certain types of information must go into any public notice, no matter what form it takes. The following section discusses the kind of information that must be included. In presenting this information in the notice, the order and emphasis depends on the circumstances of each violation.

- 1 The notice **MUST** provide a clear and readily understandable explanation of the violation.

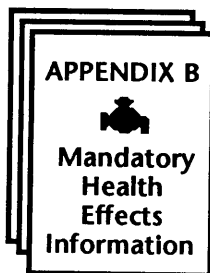


23 mg/l of
nitrate

The notice must tell readers the nature of the violation and should help them discern the seriousness of the violation.

For example, in the case of an MCL violation, the notice might indicate that analysis of the water provided to consumers showed a nitrate level of 23 milligrams per liter (mg/l), when the MCL is 10 mg/l. In the case of a monitoring violation, it might state that the system failed to take 2 of 10 samples required for bacteriological analysis.

- 2 The notice **MUST** include information about any potential adverse health effects.



EPA has established mandatory language on the health effects of certain chemical contaminants found in water (Appendix B).

The EPA language **MUST** be included in notices given by public water systems where the system is:

- in violation of an MCL or treatment technique,
- has been granted a variance or exemption,
- is operating under a variance or exemption, or
- fails to comply with a variance or exemption schedule.

The notice **MUST** include the mandatory health effects language in the notice or news release, word for word, **for each contaminant for which the system is in violation.** The mandatory health effects language must be published intact; and it cannot be broken up by inserted material.

For example, for an MCL violation of vinyl chloride, the notice MUST include the following paragraph:

"The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that vinyl chloride is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been associated with significantly increased risks of cancer among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for vinyl chloride at 0.002 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe."



Currently promulgated mandatory health effects language is included in Appendix B. Appendix B includes language for microbiological contaminants, total coliforms, and fecal coliforms/*E. coli* specified by the Surface Water Treatment and Total Coliform Regulations which were published on June 29, 1989, and which become effective December 31, 1990. The language in Appendix B must be used when NPDWRs for contaminants listed in that appendix are violated.

EPA is continuing to publish mandatory language for additional contaminants and has proposed mandatory language for a number of contaminants. Recommended language, including proposed mandatory language, is included in Appendix C for your use as appropriate. Health effects language for total coliforms and turbidity is also included. You are not required to use this language until it is final and the NPDWR is in effect. Future mandatory health effects language should be added to this handbook as it appears in the Federal Register.



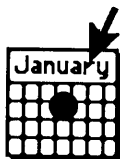
The notice MUST contain information about the population at risk.



In other words, if a particular segment of the population such as infants or senior citizens is particularly susceptible to problems that result from a violation—**this must be made clear.**

- 4** Notices **MUST** contain information about the steps being taken to correct the problem.

Problem corrected



The public must be told about what is being done by their water system to correct the problem, and about the schedule for correction of the violation. Notices probably do not need to include a lengthy description of the correction; a few sentences will probably be enough. However, notices should mention the date by which the problem will be corrected. If the problem has already been corrected, the notice should inform the consumers of the date the problem was corrected.

- 5** The notice **MUST** include information about the necessity of seeking alternative water supplies, if any.



In the case of most violations, the public does not need to seek alternative water supplies, and that should be made clear. When it is necessary to seek alternative water supplies, the need should be emphasized early in the notice.

For example, where the water exceeds the MCL for nitrate, you should caution your consumers not to use the water in formula for feeding infants less than six months of age.

- 6** Notices **MUST** include any preventive measures that should be taken until the violation is corrected.



Consumers need specific information about actions that they can take to reduce any potential health hazard that might result from the violation.

For example, waters with bacterial contamination may need to be boiled before consumption. Conversely, water high in nitrate should not be boiled.



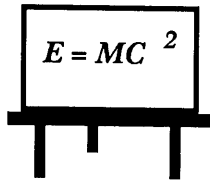
If you have any questions and your local health officials cannot help you, contact your primary agency for assistance in identifying the correct preventative measures to be taken in a particular situation. If no preventative measures are required, then this information should also be passed on to the consumer.

- 7** Notices **MUST** be clear and conspicuous.



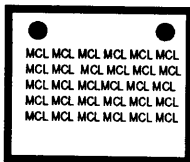
Posters must be large and placed in locations where the public will see them. Newspaper notices should be large and use design techniques to attract attention. Notices by mail or hand delivery should be tailored for that use. For more information on designing and writing notices, see **Section 4** of this Handbook.

8 Notices MUST not contain unduly technical language.



This is extremely important. Avoid technical words and phrases. When they are necessary, define them. Notices must be written in language that is easy to understand. Anything else will defeat the purpose of public notification. Again, see **Section 4** of this Handbook.

9 Notices MUST not contain unduly small print.



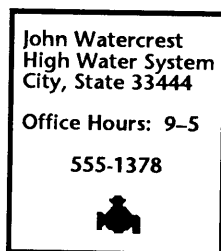
This is especially important for notices in newspapers and for posters. See **Section 4** for guidelines.

10 The notice MUST not create problems that frustrate the purpose of public notification.



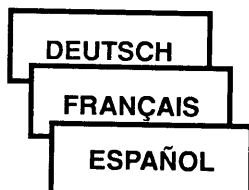
The notice must inform consumers of possible problems and provide them with information for making decisions about the safety of their drinking water. Do not use language that might confuse customers. Do not underplay the seriousness of the situation nor create undue alarm. Downplaying the significance of violations defeats the purpose of public notification.

11 Notices MUST include a phone number of the owner, operator, or someone to contact at the public water system as a source of additional information.



In news releases, this information should be included in the story itself, and at the top of the news release, so that reporters will have a source to call if they have questions. It should include a person's name and not simply a phone number. An address is optional but desirable. The notice could also list the times someone will be available to answer questions. **The source person for additional information should be prepared to answer any questions that might arise.**

12 Where it is appropriate, notices MUST be multi-lingual.



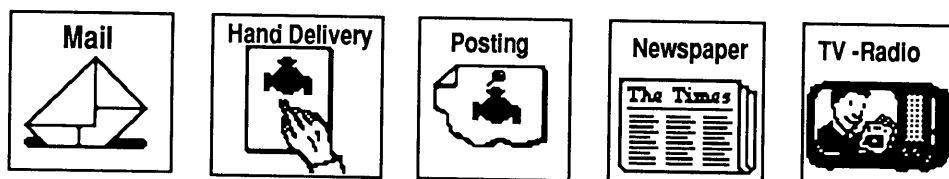
Where a non-English speaking population makes up a significant portion of the water-consuming public, the notices must be in the appropriate language, as well as English.

A Checklist of General Public Notification Requirements

The checklists in Appendix D summarize the general public notification requirements and will help community and non-community water suppliers determine if all requirements for public notification for Tier 1 and Tier 2 violations have been met. Use the checklists as you develop your public notice. (See **Appendix D** for copies of the checklist that you may duplicate for your use.)

Guidelines for Presentation of Information

When writing a public notice, there are many things to keep in mind. The public notification regulations provide specific requirements about the ways in which information is to be presented to the public. Also, how a notice is written depends on the type of medium being used.



PUBLIC NOTICE

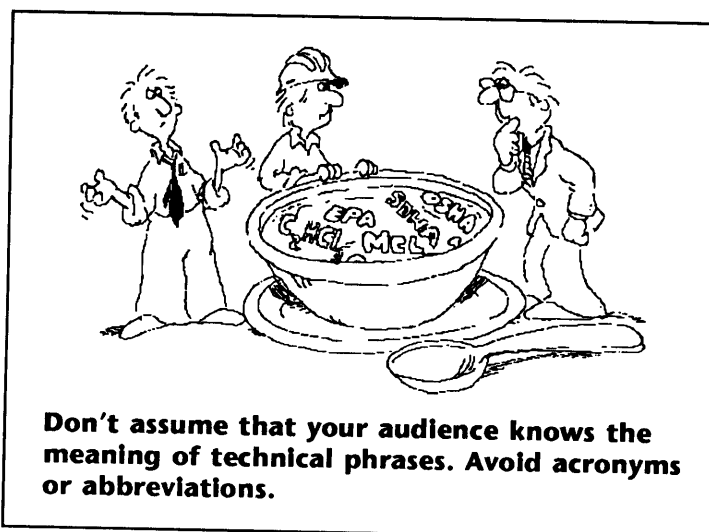
That is, a notice intended for posting or direct mail may be different than a similar notice to be placed in a newspaper. (Examples of different notices for different media are provided in **Section 4.**) While notices may vary in content and form, their purpose is, as intended by Congress: (1) to educate the public; (2) to develop public awareness of the problems facing public water systems; (3) to encourage a willingness to support greater expenditures to assist in solving these problems; and (4) to advise the public of potential or actual health hazards. In order to do this, customers must be provided information in a manner that is

- Clear
- Accurate
- Precise

To meet this requirement:

MAKE IT CLEAR

Don't use technical terms if they can be avoided. The subject of water quality, and its regulation, is complicated enough. Save technical words or phrases for times when they are necessary for understanding or for future education. If such terms are necessary, define them.



**PRESENT INFORMATION
IN ORDER OF IMPORTANCE**

Many readers, particularly newspaper audiences, read only the **first few paragraphs** of a story, letter, or notice. Those paragraphs, therefore, should contain the **most important information**; they can also attract audience interest and increase the chance that they will read further.

The first few paragraphs should also state that the information is being supplied by a water system. That not only provides information to readers, but it gives the notice additional credibility and lets readers know that they should be concerned.

BE CONCISE

Regardless of whether you use a letter, mail insert, legal notice, or poster, be **concise**. It sounds simplistic, but studies have shown that short words are easier to understand than long words. Short sentences are easier to understand than long sentences. Short paragraphs are easier to understand than long paragraphs. Also, long news releases are more likely to be cut or rewritten, or not used at all, than short ones. So . . . Include all of the **necessary information**, but don't clutter up a story or notice with every available piece of information.

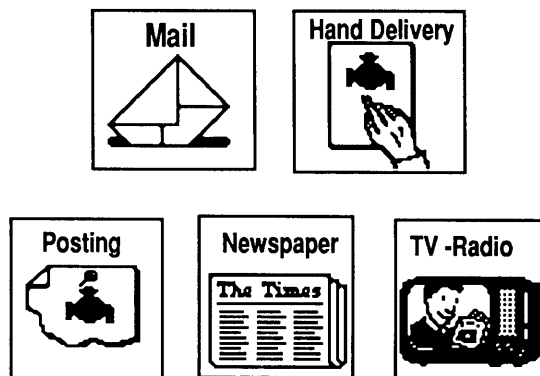
To check the clarity of a notice, you may wish to show copies to a few typical consumers before mailing or publishing it. Those consumers may help you pinpoint portions of the notice that they do not understand and which should be revised before the notice is released.

Now that you know what information you must include in your notice, you are ready to begin writing. As you prepare your notice, use the checklists and guidelines in this section to assist you. The following section (**Section 4**) provides types and examples of public notice. Read it carefully.

SECTION 4 Types and Examples of Public Notice

- Notices by Mail
- Notices by Hand Delivery
- Notices by Posting
- Notices for Newspapers
- Notices for Radio and Television

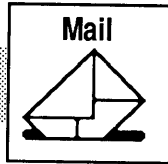
This section of the handbook discusses different types of public notice and provides examples of each. Each medium of public notice is different, and your notice should be tailored accordingly. Whether the medium is mail, hand delivery, posting, newspaper, television, or radio, your notices must be written and designed so they will have maximum impact.



PUBLIC NOTICE

When using this section, keep in mind that your notices must include all the information called for by the Checklists in Appendix D.

Notices by Mail



Mail or hand delivery of notices is a common means of letting the public know about water quality problems, particularly when a problem continues for a long time and new customers need to be notified. Delivery can generally be made with the customer's bill.

Two common forms of such notices are **formal letters** from the system manager, announcing the problem and its treatment, and a **postcard-size announcement**, often on stiff paper, that can be mailed separately or included with the water bill. Perhaps the biggest problem is providing the necessary information and getting the customer's attention at the same time. Various design techniques can help.

Boldface type: **WATER**



Type styles: **Palatino**
Geneva
M o n a c o

Important information can be **highlighted in boldface type**. Using several **type styles** will generally make a notice more readable. Information should not clutter up the entire page of a notice. White space around the type generally makes the information more readable. The examples in this section show various techniques for producing letters and mail inserts.

With the advent of computerized desktop publishing and word-processing systems, larger water systems may have increased flexibility in designing such announcements.

An example of a formal letter for the Trumble Water District follows on the next page.

EXAMPLE Formal Letter or Bill Stuffer with Recommended Health Effects Language

<div style="display: flex; justify-content: space-between; align-items: center;"><div style="text-align: center;">Trumble Water District VII 1 Lakeview Road Ball City, Utah 33333 (104)555-2859</div></div>	
NOTICE OF HIGH NITRATES IN DRINKING WATER	
July 3, 1989	
Dear Customer:	
<p>The State Department of Health has granted the Water Department an exemption from the requirement to maintain less than 10 milligrams of nitrate per liter (mg/l) of water in the water supply. The State Department of Health has established a nitrate limit of 10 mg/l, but has granted the Water Department an exemption for the next year until special water treatment equipment designed to lower nitrate levels is installed. Samples of Trumble city water show that it contains about 15 milligrams of nitrate per liter of water.</p> <p>The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. This inorganic chemical is used in fertilizer, and is associated with sewage and wastes from farm animals. It generally gets into water from sewage or as a result of agricultural fertilizing activity.</p> <p>Excessive levels of nitrate in drinking water have caused serious illness and sometimes death in young children under one year of age. Infants are at the greatest risk. The serious illness in children is caused because nitrate is converted to nitrite in the body and nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that the child can exhibit symptoms within hours of consuming water. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. However, they do not always occur. The purpose of this notice is to encourage parents and other responsible parties to provide children with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. You will receive notice as soon as a determination has been made that the drinking water is safe.</p> <p>EPA has set the drinking water standard at 10 parts per million (ppm) for nitrate to protect against the risk of these adverse effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nitrate.</p>	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; line-height: 30px; margin: 0 auto 10px auto;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; line-height: 30px; margin: 0 auto 10px auto;">2</div> <div style="font-size: 0.8em;">*</div>
<i>(continued on page 2)</i>	



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

EXAMPLE

Formal Letter or Bill Stuffer with Recommended Health Effects Language

Trumble Water District VII
page 2

Parents should find other sources of drinking water for children under one year of age. Parents should give babies bottled water and use bottled water in making formula. All area doctors and hospitals have been notified of the problem, and free supplies of bottled water are available from the Germaine County Health Department. **DO NOT BOIL WATER BEFORE DRINKING IT**, because boiling only increases the concentration of nitrate.

The high nitrate levels are probably due to faulty installation of one of the new city wells, and should be corrected by drilling a new well within the next two weeks. Because nitrate is extremely difficult to remove from water, the Department has no choice but to use the existing well until a new one is drilled. When the problem is corrected, customers will be notified through the newspaper and by letter. In the meantime, if you have questions or concern about nitrate in your water supply, please contact me at **555-2859** any time between the hours of 9:00 am to 5:00 pm.

Sincerely,

Robert Hill, Manager
Trumble Water Department

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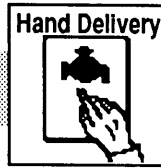
⑫ NA

* ② recommended health effects language. Substitute mandatory language when published.
⑦, ⑧, ⑨, ⑩ general items pertaining to the notice as a whole.



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

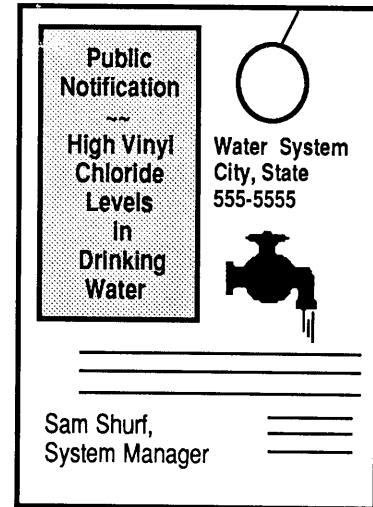
Notices by Hand Delivery



Another method of notification is the use of **doorknob flyers**: flyers with specially designed paper hooks that fit over doorknobs. The same general guidelines for

- **Type style**
- **Size**
- **Layout**


apply to both doorknob flyers and mail notices. In fact, the same information and design can often be used for both. Local printers should be able to provide the paper necessary for use in doorknob flyers.




An example of a **Doorknob Flyer** follows on the next page.

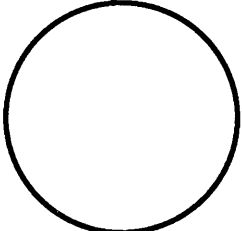
EXAMPLE

Doorknob Flyer—front



West Hills Water District
Route 5
Batesville, Pennsylvania 23333
(100)555-2121





July 2, 1989

TESTS SHOW WEST HILLS WATER HIGH IN VINYL CHLORIDE


SITUATION

Recent tests show that water samples from the West Hills Water District contain the chemical vinyl chloride in amounts that are higher than those allowed by the State Department of Health. Measurements taken July 1 showed that water contained 0.003 parts per million of vinyl chloride. The drinking water standard for vinyl chloride is 0.002 parts per million.


GENERAL INFORMATION

The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that vinyl chloride is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been associated with significantly increased risks of cancer among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for vinyl chloride at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

The vinyl chloride is the result of accidental discharges upstream from the water intake in the White River. Accidental levels of vinyl chloride in drinking water are expected to decrease during the coming week since the cause of the discharge has been eliminated.



NOTE



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The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.



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③ NA
⑫ NA

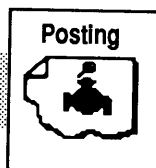


7, 8, 9, 10 general items pertaining to the notice as a whole.



Public Notification Handbook for Public Water Systems

Notices by Posting

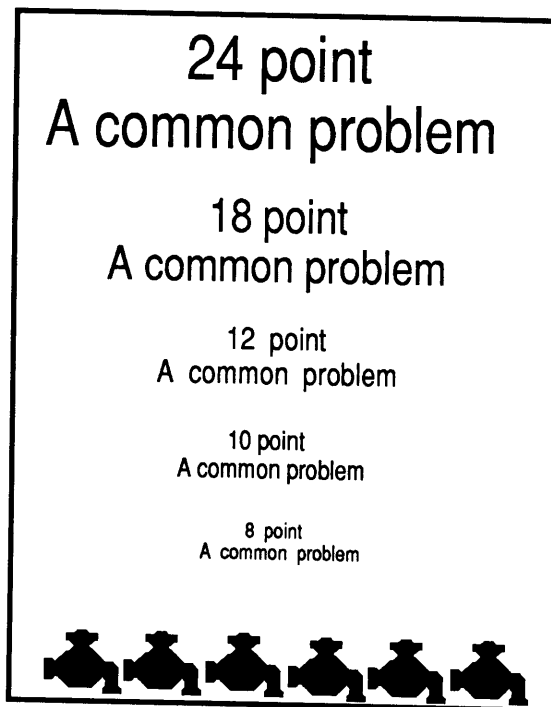


Posted notices are another method of informing the public about violations. These notices **must** contain the required information about the type of violation, health effects, steps taken to remedy the situation, a source of more information, and so on. Like mailed and hand-delivered notices, these posted notices should be designed to attract attention. Consider using

- **Drawings**
- **Large amounts of white space around the type**
- **Bold-face**
- **Other type faces as necessary**

A common problem with posted notices is using type that is too small to read comfortably at a distance. The headings of notices should be no smaller than 18-point type. The body of the notice should be 12 point or larger. Avoid type smaller than 10 point.

These posters must be placed in prominent locations so that customers have the best chance of noticing and reading them. Placing posters in obscure locations defeats the purpose of public notification.




An example of a **Posted Notice** follows on the next page.

EXAMPLE

Posted Notice with Recommended Health Effects Language

June 1, 1989



TURNPIKE WATER SYSTEM ENCOUNTERS DELAY IN LOWERING NITRATE LEVELS

WATER FROM THIS LOCATION SHOULD NOT BE GIVEN TO CHILDREN UNDER ONE YEAR OF AGE.

SITUATION

The Amber Way Turnpike Authority has announced a delay in installation of water-treatment equipment for this rest stop. As a result:

STOP

Water available at this rest stop may be slightly higher in nitrates than recommended and should not be given to children under one year of age, or used in making baby formula.

HEALTH INFORMATION

The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. This inorganic chemical is used in fertilizer, and is associated with sewage and wastes from farm animals. It generally gets into water from sewage or as a result of agricultural fertilizing activity.

Excessive levels of nitrate in drinking water have caused serious illness (and sometimes death) in young children under one year of age. Infants are at the greatest risk. The serious illness in children is caused because nitrate is converted to nitrite in the body and nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease because the child can exhibit symptoms within hours of consuming water. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. However, they do not always occur. The purpose of this notice is to encourage parents and other responsible parties to provide children with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. You will receive notice as soon as a determination has been made that the drinking water is safe.

EPA has set the drinking water standard at 10 parts per million (ppm) for nitrate to protect against the risk of these adverse effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nitrate.

See second page of this notice for additional information.

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The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

EXAMPLE Posted Notice with Recommended Health Effects Language (continued)


Page 2 of posted notice.



**GENERAL
INFORMATION**

INFORMATION

Water measured at this rest stop contained 12 milligrams of nitrate per liter of water. That is slightly higher than the nitrate limit of 10 milligrams per liter, established by the State Health Department. The Turnpike Authority has ordered special water treatment equipment that is designed to lower nitrate levels, and was scheduled to have the equipment installed by June, 1989. The Turnpike Authority was granted an exemption by the State Health Department to meet that deadline. However, because of installation delays, the equipment will not be installed until August. An application has been made to the State Health Department to approve that schedule.



Water available at this rest stop may be slightly higher in nitrates than recommended and should not be given to children under one year of age, or used in making baby formula.

Safe Water Available

Low-nitrate, safe water is available from the restaurant in the southeast corner of the rest-stop area.

The Turnpike Authority regrets the inconvenience. If you have questions regarding nitrates or the schedule for completing this work, please contact:

Bob Paterson,
Amber Way Turnpike Authority
(417)555-8686

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12 NA

* 2 recommended health effects language. Substitute mandatory language when published.

7, 8, 9, 10 general items pertaining to the notice as a whole.



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

EXAMPLE Posted Notice—Spanish

La Autoridad de las Autopistas "Vía Ambar"
1 de Junio, 1.989

**EL SISTEMA DE AGUA DE LAS AUTOPISTAS ENCUENTRA RETRASO EN
BAJAR LOS NIVELES DE NITRATO**

**NO SE DEBE DAR AGUA DE ESTE SITIO A LOS NIÑOS DE MENOS DE UN
AÑO DE EDAD.**

Situación

En esta parada, la Autoridad de Autopistas "Vía Ámbar" ha anunciado un retraso en la instalación de la maquinaria para tratar el agua.

El resultado es:

Alto

El agua de este sitio pudiera tener niveles de nitrato un poco más altos que los recomendados y no se les debe dar a los niños de menos de un año de edad, ni usarse para preparar fórmula para los bebés.

Información General

La Agencia de Protección del Medio Ambiente de los Estados Unidos, (E.P.A.), establece las características que debe tener el agua para ser considerada potable y ha determinado que, a ciertos niveles de exposición, el nitrato crea un serio riesgo para la salud. Este producto químico inorgánico se usa en fertilizantes y está asociado con aguas fecales y deposiciones de animales de granja. Generalmente llega al agua desde el alcantarillado o como resultado de las actividades de fertilización agrícola. Niveles excesivos de nitrato en agua potable han causado seria enfermedad, (y a veces muerte), en niños menores de un año de edad. Los niños presentan el mayor riesgo. La grave enfermedad en niños es causada porque el nitrato es convertido en nitrito en el cuerpo, y el nitrito interfiere con la capacidad de transporte de oxígeno en la sangre del niño. Esta es una enfermedad grave porque el niño puede presentar síntomas unas horas después de consumir el agua. Los síntomas incluyen respiración acelerada y color azulado de la piel. Evidentemente debe buscarse consejo médico inmediatamente si estos síntomas se presentan. Sin embargo, los síntomas no siempre se dan. El propósito de este anuncio es impulsar a los padres y otras personas responsables a que proporcionen a los niños una fuente alternativa de agua para beber. Las autoridades de salud pública locales y estatales son la mejor fuente de información sobre fuentes alternativas de agua potable para los niños. Serán Uds. informados tan pronto como se determine que el agua para beber no tiene peligro.

E.P.A. ha establecido 10 partes por millón (ppm) de nitrato como nivel máximo en agua potable, para protección contra el riesgo de estos efectos perjudiciales. El agua potable que sigue las normas de E.P.A. tiene poco o ningún riesgo y no debe ser considerada peligrosa con respecto al nitrato.

Lea la segunda página de este anuncio si desea obtener más información.

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The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

EXAMPLE**Posted Notice—Spanish (continued)****Pagina 2****La Autoridad de las Autopistas “Vía Ambar”**

El agua de esta parada fue medida y se encontró que contenía 12 miligramos de nitrato por litro de agua. Este nivel es un poco más alto que el de 10 miligramos por litro que fue establecido como límite por el Departamento de Salud del Estado. La autoridad de las autopistas ha ordenado maquinaria para bajar los niveles de nitrato y los planes son para instalarla en Junio de 1.989. El Departamento de Salud le concedió una exención a la Autoridad de autopistas para terminar el proyecto en esa fecha. No obstante, debido a retrasos en la instalación, la maquinaria no será puesta en funcionamiento hasta Agosto. La autoridad ha hecho solicitud al Departamento de Salud para aprobar estos planes.

Alto

El agua de este sitio pudiera tener niveles de nitrato un poco más altos que los recomendados y no se les debe dar a los niños de menos de un año de edad, ni usarse para preparar fórmula para los bebés.

Agua Sin Riesgo Disponible En

Agua potable con bajo nivel en nitrato se puede obtener en el restaurante en la esquina Sureste de esta parada.

Información

La Autoridad de Autopistas siente los inconvenientes. Si tiene preguntas acerca de los nitratos o del programa para realizar este trabajo, puede llamar a:

Bob Paterson,
Autoridad de las Autopistas “Vía Ámbar”
Tel. (417)555-8686

* **2** recommended health effects language. Substitute mandatory language when published.
7, 8, 9, 10 general items pertaining to the notice as a whole.



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

Notices for Newspapers



Newspapers are probably the most common means of public notice. Newspapers are generally considered a credible source of news by readers, and are an important means of communication in many local communities.

The requirement for newspaper notice can be satisfied by:



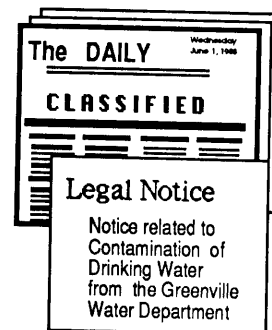
Buying space in the newspaper, usually in the legal notices or classified ads section.



A story by a reporter, if it has all the required information.



A news release that is printed in the newspaper, provided that the printed version includes all required information.



When giving newspaper notice, public water systems usually buy space in the legal notices or classified notices sections of the newspaper. This is a means of fulfilling the newspaper notice requirement. However, because the information may only be published in one issue of the paper, and because of the competition for reader attention, **these notices are not always the most effective means of public notification.** If used, these notices should be as large as possible. They should be designed to attract reader attention, using bold-faced type and empty space in parts of the ad to make the notice more readable. A story by a reporter or a published news release is usually more effective in reaching the consumer. However, for a news story or a published news release to be considered a valid (legal) public notice, it must contain **all** of the information required by the public notification regulations.

An example of a **Newspaper Notice** follows on the next page.

EXAMPLE Newspaper Notice

**Greenville Water Department
10 Star Avenue
Greenville, Florida 99999**

Notice of a Violation of the Water-Testing Schedule

The Greenville Water Department is required by state and federal regulations to test four water samples per month for coliform bacteria. Due to a scheduling problem, only three samples were taken during June, 1988, resulting in a violation. More recent testing, done according to the required schedule, shows that Greenville water is safe to drink, that there is no contamination problem, and customers do not need to seek alternative water supplies. The Greenville Water Department regrets the mistake and will work to make sure that the testing schedule is observed in the future.

Customers with questions or concern about bacteriological contamination, or any other water problem, should contact **James Brooks, Public Information Officer, Greenville Water Department, 303-555-1212, during the hours of 9:00 am to 5:00 pm.**

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② NA

③ NA

⑥ NA

⑫ NA

② mandatory language is not required for monitoring violations.

③ no special segment of the population is at risk.

⑦, ⑧, ⑨, ⑩ general items pertaining to the notice as a whole.



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

In some cases, particularly in smaller towns where competition for newspaper space is less severe, newspapers may also use news releases provided by the water supplier. Those releases must be well written and clear.

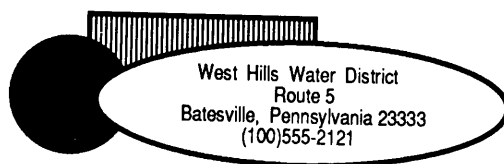
— GENERAL NEWS RELEASE INFORMATION —

If you use a news release for public notice, present the information in order of importance. Readers may not follow the entire story; the first few paragraphs can attract audience interest and thus increase the chance that they will read the rest of the story. The first few paragraphs should tell readers what kind of violation has occurred and give some sense of its seriousness. If the violation is a threat to health, that information should be given early in the story. Less important information can generally wait until later. However, information presented late in a story may be cut out during the editing process at a newspaper.

Steps for Writing a News Release:



News releases for newspapers should be written on letterhead paper that supplies the name, address, and phone number of the public water system.



The **name** and **phone number** (even if it is the same as the water system) of the person who is the source of the story should also appear at the top of the release, along with the **date** of the news release.

DATE OF RELEASE: **March 25, 1989**

SOURCE: **John Wellway, Water District Manager
(100)555-2121**



Most releases should begin with a headline...a line that describes, in as few words as possible, the essence of the story.

TESTS SHOW WEST HILLS' WATER HIGH IN VINYL CHLORIDE

By providing a headline for the newspaper to use, you may help prevent the appearance of an inaccurate headline in the story, written by someone unfamiliar with the problem.



The news release should begin by showing the location of the story. That is, if the water system is located in Batesville, the town's name should be indented and shown in capital letters, as follows:

BATESVILLE—Recent tests show that water samples from the West Hills...



After the location is shown, the story itself can begin. Some news reporters try to include everything about a story in the first sentence. In a technical story, however, that is generally difficult. The first sentence (**known as the "lead" in news writing**) often becomes too long and unwieldy. In general, it is sufficient to put the **most important information** at the beginning of a story, followed by an attribution, which shows the **source** of the story.

BATESVILLE—Recent tests show that water samples from the West Hills Water District contain the chemical vinyl chloride in amounts that are higher than those allowed by the state department of health, according to water district manager John Wellway.




The paragraph after the lead could contain more specific information about the violation. For example:

The average of the analytical results for four quarterly samples taken between January 1, 1988 and December 31, 1989 shows that water from West Hills contained an average of 0.003 milligrams per liter (mg/l) of vinyl chloride. The drinking water standard for vinyl chloride is 0.002 mg/l.

It is suggested that this paragraph include the **mandatory language about the health effects of the contaminant** involved, and **information about the cause and remedy of the situation**. Additional local information would be helpful.

The finished **News Release** for Tier 1 violations, then, should look like the one on the following page.

EXAMPLE: **News Release for Tier 1 Violation**



West Hills Water District
 Route 5
 Batesville, Pennsylvania 23333
 (100)555-2121

DATE OF RELEASE: July 5, 1989

FOR MORE INFORMATION CONTACT: John Wellway, Water District Manager
(100)555-2121

TESTS SHOW WEST HILLS' WATER HIGH IN VINYL CHLORIDE

BATESVILLE—Recent tests show that water samples from the West Hills District contain the chemical vinyl chloride in amounts that are higher than those allowed by the state department of health, according to water district manager, John Wellway.

The average of the analytical results for four quarterly samples taken between January 1, 1988 and December 31, 1989 shows that water from West Hills contained an average of 0.003 milligrams per liter (mg/l) of vinyl chloride. The national EPA drinking water standard for vinyl chloride is 0.002 mg/l.

The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that vinyl chloride is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been associated with significantly increased risks of cancer among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for vinyl chloride at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

According to Wellway, the vinyl chloride is the result of an accidental discharge upstream from the water intake in the White River. Levels of this contaminant in drinking water are expected to decrease during the coming week, as the source of the vinyl chloride has been eliminated. Further testing is scheduled.

The Water District will continue monitoring water samples closely during the next week. Officials do not believe that contamination levels pose a serious threat to health, and do not recommend that residents seek alternative water supplies. However, workers who have been exposed to high levels of vinyl chloride may want to use bottled water for drinking until further testing is done. The District is currently evaluating treatment options, including the use of granular activated carbon, should levels of vinyl chloride continue to exceed the drinking water standard.

For more information contact John Wellway at the West Hills Water District, 555-2121 during the hours of 9:00 am to 5:00 pm.

-30-

⑦, ⑧, ⑨, ⑩ general items which pertain to the notice as a whole.



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

In the case of **Tier 2** violations, which are less serious, language in news releases should make it clear that no immediate health threat necessarily exists, but that certain monitoring or exemption violations have taken place. For example,

BON—The Valley Water Department has been informed by the Indiana Department of Environmental Management that it has violated federal regulations for testing turbidity of the city's water supply.

The release should go on to include the remaining items from the checklist.

A sample **News Release** for a Tier 2 turbidity violation is presented on the following page:

EXAMPLE News Release for Tier 2 Violation



Valley Water Department
231 River Road Valley - Bon, Indiana 77777
Telephone - (101)555-0548

DATE OF RELEASE: January 3, 1989

**FOR MORE INFORMATION CONTACT: Hal Wider, Department Manager
(101)555-0548**

WATER COMPANY VIOLATES TESTING PROCEDURE

BON—The Valley Water Department has been informed by the Indiana Department of Environmental Management that it has violated federal regulations for testing the turbidity of the city's water supply.

The violation **does not** pose a threat to the quality of the city's water. Residents should not be alarmed and **do not need to seek alternative water supplies**.

For the past several months, the Water Company has inadvertently used improper equipment to measure turbidity. Turbidity is a measure of the amount of suspended particles in drinking water. High-turbidity water often appears cloudy. Tests with recently purchased, proper equipment show that the Valley water supply meets all state and federal regulations regarding turbidity.

High turbidity can be a problem because those suspended particles can interfere with disinfecting agents before they can do their job by preventing those agents from contacting all microorganisms that adhere to the particles.

Valley water customers with questions or concerns about the violation should contact **Hal Wider (555-9001) during business hours between 8:00 am–5:00 pm**.

② mandatory health effects language not required for notification of testing procedures.

③ no special segment of the population is affected.

⑦, ⑧, ⑨, ⑩ general items pertaining to the notice as a whole.

①

④

⑪

② NA

⑤ NA

⑥ NA

⑫ NA



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

Notices for Radio and Television



Public notification must also be made to **broadcast media—radio and television stations**—under certain situations. It is generally difficult to convey technical and complex information through these outlets. However, they are important because studies have shown that Americans increasingly rely on television as a primary news source. Also, in an emergency, television and particularly radio are the fastest means of notifying customers of a drinking water problem.

News releases for radio and television can be written in much the same way as for newspapers. Because most stations make relatively little broadcast time available for news, it becomes even more important to summarize the situation in the first few paragraphs of the news release. Also, because listeners cannot refer to an earlier paragraph or technical definition, releases for broadcast media should probably be even **less technical** and **less complex** than for newspapers.

In many cases, the same release will work for newspapers, radio, and television. However, some stations prefer that the text of the release be written in all **upper-case letters**. **Pronunciation guides** are sometimes helpful to broadcasters who must be able to pronounce unfamiliar terms and words. Also, all **abbreviations should be spelled out** so that the story is written just the way the words would be read.



Pronunciation Guide

Trichloroethylene — trī, klō-rō-'eth-ə-, lēn

Dichloroethane — dī, klōr-ō-'eth-ān

The finished **Broadcast News Release**, then, should look like the one on the following page.

EXAMPLE Broadcast News Release with Mandatory Health Effects Language



**Rural Water District IV - Route 3 - Farmville, Texas 88888
(108)555-6284**

FOR RELEASE: JUNE 2, 1989

**FOR FURTHER INFORMATION CONTACT: BOB THOMPSON, MANAGER
(108)555-6284**

**WATER DISTRICT VIOLATES DISINFECTANT REQUIREMENTS; CUSTOMERS
SHOULD BOIL THEIR WATER OR SEEK ALTERNATIVE WATER SUPPLIES.**

**FARMVILLE RURAL WATER DISTRICT IV HAS BEEN NOTIFIED BY THE STATE
DEPARTMENT OF HEALTH THAT IT HAS VIOLATED REGULATIONS FOR DISINFECTING ITS
WATER SUPPLY.**

**BOB THOMPSON, WATER DISTRICT MANAGER, SAID THAT THE DISTRICT'S
DISINFECTANT EQUIPMENT HAS NOT BEEN OPERATING PROPERLY. THE PROBLEM WAS
DISCOVERED MAY 30TH. SINCE THAT TIME THE WATER HAS NOT HAD ADEQUATE
DISINFECTION AND MAY POSE A RISK FOR WATER-DISTRICT CUSTOMERS. THOMPSON
RECOMMENDED THAT ALL DISTRICT CUSTOMERS BOIL THEIR WATER BEFORE
CONSUMPTION OR USE BOTTLED WATER FOR DRINKING UNTIL FURTHER NOTICE.**

**ACCORDING TO THOMPSON, THE UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY (EPA) SETS DRINKING WATER STANDARDS AND HAS DETERMINED THAT THE
PRESENCE OF MICROBIOLOGICAL CONTAMINANTS ARE A HEALTH CONCERN AT
CERTAIN LEVELS OF EXPOSURE. IF WATER IS INADEQUATELY TREATED,
MICROBIOLOGICAL CONTAMINANTS IN THAT WATER MAY CAUSE DISEASE. DISEASE
SYMPTOMS MAY INCLUDE DIARRHEA, CRAMPS, NAUSEA, AND POSSIBLY JAUNDICE,
AND ANY ASSOCIATED HEADACHES AND FATIGUE.**

— MORE —

ADD ONE

RURAL WATER DISTRICT IV

THESE SYMPTOMS, HOWEVER, ARE NOT JUST ASSOCIATED WITH DISEASE-CAUSING ORGANISMS IN DRINKING WATER, BUT ALSO MAY BE CAUSED BY A NUMBER OF OTHER FACTORS OTHER THAN YOUR DRINKING WATER. EPA HAS SET ENFORCEABLE REQUIREMENTS FOR TREATING DRINKING WATER TO REDUCE THE RISK OF THESE ADVERSE HEALTH EFFECTS. TREATMENT SUCH AS FILTERING AND DISINFECTING THE WATER REMOVES OR DESTROYS MICROBIOLOGICAL CONTAMINANTS. DRINKING WATER WHICH IS TREATED TO MEET THE EPA REQUIREMENTS IS ASSOCIATED WITH LITTLE TO NONE OF THIS RISK AND SHOULD BE CONSIDERED SAFE.

② *

THE DISTRICT IS REPLACING THE FAULTY EQUIPMENT AND SHOULD HAVE THE EQUIPMENT CORRECTED BY LATE TOMORROW AFTERNOON, JUNE 3. THOMPSON SAID HE WOULD NOTIFY CUSTOMERS WHEN THEY COULD RETURN TO USING THEIR NORMAL WATER SUPPLY.

④

⑤

RESIDENTS WHO WOULD LIKE MORE INFORMATION ABOUT THE SITUATION SHOULD CONTACT THOMPSON AT THE WATER DISTRICT OFFICES BETWEEN 8:00 AM AND 5:00 PM. HIS PHONE NUMBER IS 555-6284

⑪

###

⑫ NA



"ADD ONE" is used to indicate a continuation of information for release.

indicates end of information to be released.

* ② recommended health effects language. Substitute mandatory language when published.

⑦, ⑧, ⑨, ⑩ general items pertaining to the notice as a whole.



The circled numbers on the example correspond to items found in the Checklists of Public Notice Requirements, Appendix D. NA means not applicable in this situation.

SECTION 5 Special Public Notice for Fluoride

- **Primary and Secondary Standards for Fluoride**
- **Public Notification Requirements for Exceedances of the Secondary Standard for Fluoride**
- **Violations of Primary MCL for Fluoride**

Primary and Secondary Standards for Fluoride

Background

There are two drinking water standards for fluoride: a primary standard, called a maximum contaminant level (MCL), and a secondary standard, called a secondary maximum contaminant level (SMCL). The MCL is the **legally enforceable** numerical standard which has been established to protect the public from adverse health effects. The SMCL is a numerical federal **guideline** for the protection of the public welfare.

You are probably most familiar with the MCL for fluoride, which has been set at 4 milligrams per liter (mg/l) to protect against bone changes which result in crippling skeletal fluorosis, an adverse health effect. However, in addition to the increased risk of crippling skeletal fluorosis associated with finished waters that exceed the MCL, EPA has determined that the cosmetic effects of fluoride associated with waters containing levels of fluoride **below the MCL of 4 mg/l but above 2 mg/l** adversely affect the public welfare, as exposure to these waters results in the formation of cosmetically objectionable dental fluorosis (discoloration and/or pitting of teeth). Therefore, EPA has set an SMCL for fluoride of 2 mg/l and has established a public notification requirement **for community water systems** that exceed this level.

Public Notification Requirements for Exceedances of the Secondary Standard for Fluoride

Public notification requirements for fluoride are slightly different than for other contaminants. If a **community** water system exceeds the **secondary maximum contaminant level for fluoride** (2 mg/l), but does not exceed the primary MCL (4 mg/l), it must notify its customers using the following notice. This notice must be provided

- **Annually to all customers,**
- **To new customers at the time service begins, and**
- **To the state public health officer.**

The following notice from §143.5 of the National Secondary Drinking Water Regulations with the appropriate information about your water system (see footnotes ① and ② in notice) must be sent to the parties above without any changes or additional language.

Dear User,

The U.S. Environmental Protection Agency requires that we send you this notice on the level of fluoride in your drinking water. The drinking water in your community has a fluoride concentration of _____ milligrams ① per liter (mg/l).

Federal regulations require that fluoride, which occurs naturally in your water supply, not exceed a concentration of 4.0 mg/l in drinking water. This is an enforceable standard called a Maximum Contaminant Level (MCL), and it has been established to protect the public health. Exposure to drinking water levels above 4.0 mg/l for many years may result in some cases of crippling skeletal fluorosis, which is a serious bone disorder.

Federal law also requires that we notify you when monitoring indicates that the fluoride in your drinking water exceeds 2.0 mg/l. This is intended to alert families about dental problems that might affect children under nine years of age. The fluoride concentration of your water exceeds this federal guideline.

Fluoride in children's drinking water at levels of approximately 1 mg/l reduces the number of dental cavities. However, some children exposed to levels of fluoride greater than about 2.0 mg/l may develop dental fluorosis. Dental fluorosis, in its moderate and severe forms, is a brown staining and/or pitting of the *permanent* teeth.

Because dental fluorosis occurs only when *developing* teeth (before they erupt from the gums) are exposed to elevated fluoride levels, households without children are not expected to be affected by this level of fluoride. Families with children under the age of nine are encouraged to seek other sources of drinking water for their children to avoid the possibility of staining and pitting.

Your water supplier can lower the concentration of fluoride in your water so that you will still receive the benefits of cavity prevention while the possibility of stained and pitted teeth is minimized. Removal of fluoride may increase your water costs. Treatment systems are also commercially available for home use. Information on such systems is available at the address given below. Low fluoride bottled drinking water that would meet all standards is also commercially available.

For further information, contact _____ ② at your water system.

Yours truly,

Robert Jones
Utilities Director

- ① PWS shall insert the compliance result which triggered notification under this Part.
- ② PWS shall insert the name, address, and telephone number of a contact person at the PWS.

Violations of Primary MCL for Fluoride

When a community or non-community public water system

- Violates the **primary standard** for fluoride (MCL)
- Operates under a variance or exemption from the fluoride MCL
- Fails to comply with a schedule prescribed under a variance or exemption for fluoride

the notice must consist of the public notice (letter) given above plus a description of any steps the system is taking to correct the problem.



The notice must be given in the same manner and frequency as for a Tier 1 non-acute violation as described in Section 2 of this Handbook.

SECTION 6 Proof of Publication

■ What Constitutes Proof of Notice

Reporting requirements for public water systems are given in §141.31, Reporting Requirements, of the NPDWR. Section 141.31(d) states:

“The water supply system, within ten days of completion of each public notification required pursuant to §141.32, shall submit to the State a representative copy of each type of notice distributed, published, posted, and/or made available to the persons served by the system and/or to the media.”

In cases where a state has not assumed primary responsibility for the public drinking water program, copies of notices should be sent to the EPA office with oversight responsibility for your state.

What Constitutes Proof of Notice

Proof of newspaper notice can be supplied in several ways. **The simplest way is to cut out the notice and, along with the date of publication, provide it to the primacy agency.** Newspaper advertising offices can also provide you with proof of publication. **Tearsheets**—copies of the pages showing your advertisement—can be arranged for, or a **certification process**, by which the paper can offer an affidavit of proof that your advertisement was published, can also be obtained. You should request those items at the time that you place the advertisement. There may be an additional charge for these services.

In addition to copies of newspaper notices,

- **Actual notices or copies of mail notices**
- **Hand-delivered notices**
- **Posters**
- **News releases**

should also be submitted to the State following distribution. You may wish to keep copies of notices on file for your records, particularly if you are a community water system, since **community water systems are required to give notice to all new billing units (e.g. new customers, residents) or new hookups for on-going Tier 1 violations. This notice must be given prior to or at the time service begins, and these records are useful in fulfilling this requirement.**



Copies of each notice must be submitted to your primacy agency within 10 days after public notification is completed. As of August, 1989, Indiana, Wyoming, the District of Columbia and Indian Tribes are the only entities which do not have primacy. For these entities, EPA remains the primacy agency. Appendix I lists EPA regional drinking water program offices. Appendix J lists state offices.

SECTION 7 Annual Summary of Violations: A Recommendation

Although it's not a regulatory requirement, EPA recommends that public water system owners, operators and managers consider providing their customers with an **annual summary** of the overall compliance status of their system. Consumers may overlook mail inserts or fail to realize the significance of sporadically received public notices. **An annual summary would give consumers "the big picture" as to how their water system is performing.**

EPA believes that an annual summary of violations—or, better, a report of no violations—would have a significant impact on consumers. It would not only inform them as to how well their system is performing, but would also help them develop a greater awareness of the problems faced by their system. Hopefully, the summary would engender a greater willingness to support solutions to any problems faced by their system.

SECTION 8 Notification for Unregulated Contaminants

Notification for unregulated contaminants

IS NOT

the same as public notification for regulated contaminants (contaminants for which Maximum Contaminant Levels (MCLs) or treatment technique requirements have been established).

Section 1414 of the Safe Drinking Water Act (SDWA) requires "the owner or operator of a public water system to give notice to the persons served by it of contaminant levels of any unregulated contaminant required to be monitored under section 1445(a) [Monitoring for Unregulated Contaminants]."

On July 8, 1987 EPA published the final requirements for monitoring for unregulated contaminants in drinking water (40 Code of Federal Regulations (CFR) Part 141, Section 141.40).

This rule promulgates **monitoring requirements for 51 synthetic organic chemicals for which maximum contaminant levels (MCLs) or treatment technique requirements have not been established.**

Section 141.35(d) requires that:

"The owner or operator shall notify persons served by the system of the availability of the results of sampling conducted under Section 141.40 [Special monitoring for organic chemicals] by including a notice in the first set of water bills issued by the system after the receipt of the results or written notice within three months. The notice shall identify a person and supply the telephone number to contact for information on the monitoring results."

As you can see, **notice for unregulated contaminants is not the same as for regulated contaminants.**

For unregulated contaminants, all you are required to do is send a NOTICE OF AVAILABILITY OF MONITORING RESULTS to your customers.

You can, if you want to, send a copy of the results, but this is not required. The notice of availability must

- **Be sent** within three months of your receiving the results
- **Contain** the name and telephone number of a contact person who can respond to customer questions



States may establish more stringent notice requirements. Contact your privacy agent to make sure that your notice for unregulated contaminants meets ALL the requirements.

Appendices

APPENDIX A. **Glossary of Terms**

ACUTE — Certain violations such as nitrate and fecal coliform bacteria can pose acute (immediate) risk to human health. MCL violations that are acute violations are defined by regulation, and require additional notice by electronic media (only for community water systems). Currently, EPA only defines the violation of the nitrate standard as an acute violation. However, your State may define additional violations as acute violations.

MCL — Maximum Contaminant Level, the maximum permissible level of a contaminant in drinking water which is delivered to any user of a public water system. MCLs are established by the National Primary Drinking Water Regulations.

NPDWR — National Primary Drinking Water Regulation, the standards for drinking water quality. Each NPDWR contains an MCL or treatment technique, and monitoring and reporting requirements for a contaminant of concern.

PRIMACY AGENCY — The agency that is responsible for regulation of water supply systems in states and on Indian lands. In most cases, this is the state agency that regulates water supply systems. In states and on Indian lands where no designated agency administers the public drinking water program, EPA is the primacy agency.

PUBLIC WATER SYSTEM — A system that provides piped water for human consumption if such system has at least 15 service connections or regularly serves an average of 25 individuals 60 or more days out of the year. Such a system includes: (1) any collection, treatment, storage and distribution facilities under the control of the operator of such system and used primarily in connection with such system, and (2) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. A public water system is either a **community water system** or a **non-community water system** and can be publicly or privately owned.

1. **COMMUNITY WATER SYSTEM** — A public water system that pipes water for human consumption to at least 15 service connections used by year-round residents, or one that regularly serves at least 25 year-round residents (e.g., municipality, subdivision, mobile home park).
2. **NON-COMMUNITY WATER SYSTEM** — A public water system that pipes water for human consumption to at least 15 service connections used by individuals other than year-round residents for at least 60 days a year, or serves 25 or more people at least 60 days a year (e.g., schools, factories, rest stops, interstate carrier conveyances).
 - a. **NON-TRANSIENT NON-COMMUNITY WATER SYSTEM** — A non-community water system that serves at least 25 of the same persons over six months per year (e.g., schools, factories, industrial parks, office buildings).
 - b. **TRANSIENT NON-COMMUNITY WATER SYSTEM** — A non-community water system that does not meet the definition of a non-transient non-community water system (e.g., highway rest stops, restaurants, motels, golf courses, parks).

SDWA — Safe Drinking Water Act, the act that establishes standards for drinking water safety. Amended in 1986.

TIER 1 VIOLATIONS — More serious violations, including failure to comply with an MCL (see Maximum Contaminant Level); failure to comply with prescribed treatment techniques; and failure to meet variance or exemption schedules.

TIER 2 VIOLATIONS — Less serious violations, including failure to comply with monitoring requirements; failure to comply with a testing procedure prescribed by a NPDWR; and operating under a variance or exemption.

VOCs — Volatile synthetic organic chemicals.

APPENDIX B. **Mandatory Health Effects Information**

The following language must be included, word for word, in any notice involving a violation related to one of the twelve following contaminants. Language for additional contaminants is being developed and should be added to this section as it is promulgated.

1) **1,1-Dichloroethylene:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,1-dichloroethylene is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals which cause adverse effects in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for 1,1-dichloroethylene at 0.007 parts per million (ppm) to reduce the risk of these adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

2) **1,1,1-Trichloroethane:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,1,1-trichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaner and degreaser of metals. It generally gets into drinking water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during their working careers also suffered damage to the liver, nervous system, and circulatory system. Chemicals which cause adverse effects among exposed industrial workers and in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for 1,1,1-trichloroethane at 0.2 parts per million (ppm) to protect against the risk of these adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

3) **1,2-Dichloroethane:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,2-dichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaning fluid for fats, oils, waxes, and resins. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for 1,2-dichloroethane at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

4) **Benzene:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that benzene is a health concern at certain levels of exposure. This chemical is used as a solvent and degreaser of metals. It is also a major component of gasoline. Drinking water contamination generally results from leaking underground gasoline and petroleum tanks or improper waste disposal. This chemical has been associated with significantly increased risks of leukemia among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in

4) Benzene continued.

humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for benzene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

5) Carbon tetrachloride: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that carbon tetrachloride is a health concern at certain levels of exposure. This chemical was once a popular household cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for carbon tetrachloride at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

6) Fecal coliforms/*E. coli*: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of fecal coliforms or *E. coli* is a serious health concern. Fecal coliforms and *E. coli* are generally not harmful themselves, but their presence in drinking water is serious because they usually are associated with sewage or animal wastes. The presence of these bacteria in drinking water is generally a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set an enforceable drinking water standard for fecal coliforms and *E. coli* to reduce the risk of these adverse health effects. Under this standard all drinking water samples must be free of these bacteria. Drinking water which meets this standard is associated with little or none of this risk and should be considered safe. State and local health authorities recommend that consumers take the following precautions: [To be inserted by the public water system, according to instructions from State or local authorities]. **Effective December 31, 1990.**

7) Fluoride: (See Section 5 and **Appendix H.**)

8) Microbiological contaminants: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of microbiological contaminants are a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set enforceable requirements for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water which is treated to meet EPA requirements is associated with little to none of this risk and should be considered safe. **Effective December 31, 1990.**

9) Para-dichlorobenzene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that para-dichlorobenzene is a health concern at certain levels of exposure. This chemical is a component of deodorizers, moth balls, and pesticides. It generally gets into drinking water by improper waste disposal. The chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals which cause adverse effects in laboratory animals also may cause

9) Para-dichlorobenzene continued.

adverse health effects in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for para-dichlorobenzene at 0.075 parts per million (ppm) to reduce the risk of these adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

10) Total coliforms: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of total coliforms is a possible health concern. Total coliforms are common in the environment and are generally not harmful themselves. The presence of these bacteria in drinking water, however, generally is a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set an enforceable drinking water standard for total coliforms to reduce the risk of these adverse health effects. Drinking water which meets this standard is usually not associated with a health risk from disease-causing bacteria and should be considered safe. **Effective December 31, 1990.**

11) Trichloroethylene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that trichloroethylene is a health concern at certain levels of exposure. This chemical is a common metal cleaning and dry cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set forth the enforceable drinking water standard for trichloroethylene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

12) Vinyl chloride: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that vinyl chloride is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been associated with significantly increased risks of cancer among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for vinyl chloride at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

APPENDIX C. Recommended Health Effects Language

EPA is in the process of developing final mandatory health effects language for additional contaminants. Until such language is promulgated, recommended language is provided below. This recommended language is used in the sample public notices in Section 4 for contaminants for which no mandatory language has been finalized.

- 1) **2,4-D:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 2,4-D is a health concern at certain levels of exposure. This organic chemical is used to control algae in reservoirs. It generally leaches into groundwater or runs off into surface water after application as a weed killer. This chemical has been shown to produce adverse effects characterized by damage to the liver and kidney of laboratory animals such as rats exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for 2,4-D at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to 2,4-D.
- 2) **2,4,5-TP:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 2,4,5-TP is a health concern at certain levels of exposure. This organic chemical is used as a herbicide. It generally gets into water by runoff into surface water or leaching into ground water. This chemical has been shown to damage the liver and kidney of laboratory animals such as rats and dogs exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the nervous system. EPA has set the drinking water standard for 2,4,5-TP at 0.01 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to 2,4,5-TP.
- 3) **Barium:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that barium is a health concern at certain levels of exposure. This inorganic chemical occurs naturally in some types of minerals that may serve as sources of ground water. It is also used in oil and gas drilling muds, automotive paints, bricks, tiles and jet fuels. It generally gets into drinking water after dissolving from naturally occurring minerals in the ground. This chemical has been shown to damage the heart and cardiovascular system, and is associated with high blood pressure in laboratory animals such as rats exposed to high levels during their lifetimes. EPA has set the drinking water standard for barium at 1.0 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to barium.
- 4) **Cadmium:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that cadmium is a health concern at certain levels of exposure. Smoking of tobacco is a common source of general exposure. This inorganic metal is a contaminant in the metals used to galvanize pipe. It generally gets into water by corrosion of galvanized pipes or by improper waste disposal. This chemical has been shown to damage the kidney in animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the kidney. EPA has set the drinking water standard for cadmium at 0.010 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to cadmium.

5) **Chromium:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that chromium is a health concern at certain levels of exposure. This inorganic metal occurs naturally in the ground and is often used in the electroplating of metals. It generally gets into water from runoff from old mining operations and improper waste disposal from plating operations. This chemical has been shown to damage the kidney, nervous system, and the circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some humans who were exposed to this chemical suffered liver and kidney damage, dermatitis and respiratory problems. EPA has set the drinking water standard for chromium at 0.05 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to chromium.

6) **Lead:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that lead is a health concern at certain exposure levels. Lead is a soft, dull, gray metal that has frequently been used in water supply plumbing materials, especially flux, solder, pipes, and brass and bronze fixtures. Lead usually contaminated drinking water as a result of the corrosion of these plumbing materials by the water they carry. Lead has been shown to cause a variety of adverse health effects in humans and animals. In humans, lead has been shown to interfere with the formation of red blood cells (heme synthesis), cause anemia, cause kidney damage, impair reproductive function, reduce birth weight, cause premature birth, delay physical and mental development in babies and young children, impair mental abilities in children, and increase blood pressure in adults. Many of these effects have been observed at relatively low exposure levels. Studies on animals indicated that lead may also cause cancer at high doses. EPA has set the drinking water standard for lead at 0.05 ppm (parts per million) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little of this risk and should be considered safe to drink.

7) **Lindane:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that lindane is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. It generally gets into drinking water by runoff into surface water or leaching into ground water after application to crops. This chemical has been shown to damage the liver, kidney, nervous system, and immune system of laboratory animals such as rats, mice and dogs exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system and circulatory system. EPA has established the drinking water standard for lindane at 0.004 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to lindane.

8) **Mercury:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that mercury is a health concern at certain levels of exposure. This inorganic metal is used in electrical equipment and some water pumps. It usually gets into water as a result of improper waste disposal. This chemical has been shown to damage the kidneys of laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for mercury at 0.002 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to mercury.

9) **Methoxychlor:** The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that methoxychlor is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. It generally gets into water by runoff into surface water or leaching into ground water. This chemical has been shown to damage the liver, kidney, nervous system, and circulatory system of laboratory animals such as rats exposed at high levels during their lifetimes. It has also been shown to produce growth retardation in rats. EPA has set the drinking water standard for methoxychlor at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to methoxychlor.

10) Nitrate: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. This inorganic chemical is used in fertilizer, and is associated with sewage and wastes from farm animals. It generally gets into water from sewage or as a result of agricultural fertilizing activity. Excessive levels of nitrate in drinking water have caused serious illness and sometimes death in young children under one year of age. Infants are at the greatest risk. The serious illness in children is caused because nitrate is converted to nitrite in the body and nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that the child can exhibit symptoms within hours of consuming water. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. However, they do not always occur. The purpose of this notice is to encourage parents and other responsible parties to provide children with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. You will receive notice as soon as a determination has been made that the drinking water is safe. EPA has set the drinking water standard at 10 parts per million (ppm) for nitrate to protect against the risk of these adverse effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nitrate.

11) Selenium: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that selenium is a health concern at certain high levels of exposure. Selenium is also an essential nutrient at low levels of exposure. This inorganic chemical is found naturally in soils and is used in electronics, photocopy operations, the manufacture of glass, chemicals, drugs, and as a fungicide and a feed additive. This chemical has been shown to damage the kidney, nervous system, and the circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, nervous system, and circulatory system. EPA has set the drinking water standard for selenium at 0.01 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to selenium.

12) Toxaphene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that toxaphene is a health concern at certain levels of exposure. This organic chemical was once a pesticide widely used on cotton, corn, soybeans, pineapples and other crops. It generally gets into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for toxaphene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to toxaphene.

13) Turbidity: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the turbidity of water is a health concern at certain levels of exposure. The turbidity, or cloudiness, of drinking water is a measure of the minute particles suspended in the water that can interfere with disinfection and with testing for bacteria. Excessive turbidity can allow disease-causing organisms to survive. EPA has set the enforceable drinking water standard for turbidity at 1 turbidity unit (TU) as determined by a monthly average of daily results, and 5 TU based on an average of two consecutive days, to reduce the risk of health effects associated with particles suspended in water. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

APPENDIX D. Checklists for Community and Non-Community Public Water Systems for Tier 1 and Tier 2 Violations

Use the checklist for your type of system as you develop your public notice to be sure that all requirements for public notification have been met.

Checklist of Public Notification Requirements for **COMMUNITY WATER SYSTEMS**

PART A: Determine your notification requirements for each violation by circling all that apply. Read footnotes carefully.

Public Notification Requirements

Violation Category Type	Mandatory Health Effects Information Required (All PWSs)	Notice to New Billing Units (CWSs Only)	Type of PWS	Time Frame Within Which Notice Must be Given (Box Indicates time frame for initial notice, and is followed by the frequency of repeat notice until the violation is resolved)						
				Violation	72 hours	7 days	14 days	45 days	3 months	Annual
TIER 1			Community	Acute Violations:						
1. MCL	Yes	Yes		TV and Radio			No Repeat			
2. Treatment Technique	Yes	Yes		Newspaper ¹			No Repeat			
3. Variance or Exemption Schedule Violation	Yes	Yes		Mail or Hand Delivery ²			Quarterly Repeat			
				Non-Acute Violations:						
				Newspaper ¹			No Repeat			
				Mail or Hand Delivery ²			Quarterly Repeat			
TIER 2				Newspaper ¹						
1. Monitoring ³	No	No	Community	Quarterly Repeat by Mail or Hand Delivery						
2. Testing Procedure	No	No								
3. Variance or Exemption Issued	Yes	No								

Footnotes

¹If no newspaper of general circulation is available, posting or hand delivery is required as specified in §141.32(a)(3)(i) and §141.32(b)(3)(i).

²May be waived in accordance with §141.32(a)(1)(ii).

³Less frequent notice (but no less than annual) to be required as in §142.16(a).

PART B on following page.

Checklist of Public Notification Requirements (continued)

COMMUNITY WATER SYSTEMS

PART B: Check each item below that appears in the notice you have prepared. When all appropriate items have been checked, your notice should meet the requirements established for General Public Notification.

Notice Contents

- **The notice provides a clear and readily understandable explanation of the**
 - ☐ 1. violation
 - ☐ 2. potential adverse health effects (**mandatory health effects language**)
 - ☐ 3. population at risk
 - ☐ 4. steps the system is taking to correct the violation
 - ☐ 5. necessity of seeking alternative water supplies (if any)
 - ☐ 6. preventive measures the consumer should take until the violation is corrected
- **The notice**
 - ☐ 7. is clear and conspicuous in design
 - ☐ 8. contains non-technical language
 - ☐ 9. uses print that is easily read
 - ☐ 10. content creates no problems that would frustrate the purpose of public notification
 - ☐ 11. contains the telephone number of the owner, operator, or designee of the public water system as a source of additional information
 - ☐ 12. contains multi-lingual information, where appropriate

Checklist of Public Notification Requirements for **NON-COMMUNITY WATER SYSTEMS**

PART A: Determine your notification requirements for each violation by circling all that apply. Read footnotes carefully.

Public Notification Requirements

Violation Category Type	Mandatory Health Effects Information Required (All PWSs)	Notice to New Billing Units (CWSs Only)	Type of PWS	Time Frame Within Which Notice Must be Given (Box Indicates time frame for initial notice, and is followed by the frequency of repeat notice until the violation is resolved)						
				Violation	72 hours	7 days	14 days	45 days	3 months	Annual
TIER 1				Option 1: Notice as for Community Water Systems						
1. MCL	Yes		Non-Community ¹							
2. Treatment Technique	Yes					or				
3. Variance or Exemption Schedule Violation	Yes	Not Applicable		Option 2: Acute Violations:						
				Posting or Hand Delivery				Continuous/Quarterly Repeat ³		
				Non-Acute Violations:						
				Posting or Hand Delivery				Continuous/Quarterly Repeat ³		
TIER 2				Option 1: Notice as for Community Water Systems						
1. Monitoring ²	No		Non-Community ¹							
2. Testing Procedure	No	Not Applicable				or				
3. Variance or Exemption Issued	Yes			Option 2: Posting or Hand Delivery						
									Continuous/Quarterly Repeat ³	

Footnotes

¹Includes both transient non-community public water systems and non-transient non-community public water systems.

²Less frequent notice (but no less than annual) to be required as in §142.16(a).

³Continuous repeat required if posting is used; quarterly repeat required if hand delivery is used.

PART B on following page.

Checklist of Public Notification Requirements (continued)**NON-COMMUNITY WATER SYSTEMS**

PART B: Check each item below that appears in the notice you have prepared. When all appropriate items have been checked, your notice should meet the requirements established for General Public Notification.

Notice Contents

- **The notice provides a clear and readily understandable explanation of the**
 - ☐ 1. violation
 - ☐ 2. potential adverse health effects (**mandatory health effects language**)
 - ☐ 3. population at risk
 - ☐ 4. steps the system is taking to correct the violation
 - ☐ 5. necessity of seeking alternative water supplies (if any)
 - ☐ 6. preventive measures the consumer should take until the violation is corrected
- **The notice**
 - ☐ 7. is clear and conspicuous in design
 - ☐ 8. contains non-technical language
 - ☐ 9. uses print that is easily read
 - ☐ 10. content creates no problems that would frustrate the purpose of public notification
 - ☐ 11. contains the telephone number of the owner, operator, or designee of the public water system as a source of additional information
 - ☐ 12. contains multi-lingual information, where appropriate

APPENDIX E.**Safe Drinking Water Act • Section 1414(c):
Enforcement of Drinking Water Regulations,
General Public Notification Requirements****ENFORCEMENT OF DRINKING WATER REGULATIONS**

SEC. 1414(c) Each owner or operator of a public water system shall give notice to the persons served by it-

- (1) of any failure on the part of the public water system to-
 - (A) comply with an applicable maximum contaminant level or treatment technique requirement of, or a testing procedure prescribed by, a national primary drinking water regulation, or
 - (B) perform monitoring required by section 1445(a), and
- (2) if the public water system is subject to a variance granted under section 1415(a)(1)(A) or 1415(a)(2) for an inability to meet a maximum contaminant level requirement or is subject to an exemption granted under section 1416, of-
 - (A) the existence of such variance or exemption, and
 - (B) any failure to comply with the requirements of any schedule prescribed pursuant to the variance or exemption.

The Administrator shall by regulation prescribe the form, manner, and frequency for giving notice under this subsection. Within 15 months after the enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall amend such regulations to provide for different types and frequencies of notice based on the differences between violations which are intermittent or infrequent and violations which are continuous or frequent. Such regulations shall also take into account the seriousness of any potential adverse health effects which may be involved. Notice of any violation of a maximum contaminant level or any other violation designated by the Administrator as posing a serious potential adverse health effect shall be given as soon as possible, but in no case later than 14 days after the violation. Notice of a continuous violation of a regulation other than a maximum contaminant level shall be given no less frequently than every 3 months. Notice of violations judged to be less serious shall be given no less frequently than annually. The Administrator shall specify the types of notice to be used to provide information as promptly and effectively as possible taking into account both the seriousness of any potential adverse health effects and the likelihood of reaching all affected persons. Notification of violations shall include notice by general circulation newspaper serving the area and, whenever appropriate, shall also include a press release to electronic media and individual mailings. Notice under this subsection shall provide a clear and readily understandable explanation of the violation, any potential adverse health effects, the steps that the system is taking to correct such violations, and the necessity for seeking alternative water supplies, if any, until the violation is corrected. Until such amended regulations are promulgated, the regulations in effect on the date of the enactment of the Safe Drinking Water Act Amendments of 1986 shall remain in effect. The Administrator may also require the owner or operator of a public water system to give notice to the persons served by it of contaminant levels of any unregulated contaminant required to be monitored under section 1445(a). Any person who violates this subsection or regulations issued under this subsection shall be subject to a civil penalty of not to exceed \$25,000.

APPENDIX F.

National Primary Drinking Water Regulations ● Section 141.32: General Public Notification Requirements ● October 28, 1987 ● Including Technical Amendments of April 17, 1989 and the Surface Water Treatment and Total Coliform Regulations of June 29, 1989

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 141, 142, and 143

[WH-FRL-3254-6]

Drinking Water Regulations; Public Notification

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action under section 1414(c) of the Safe Drinking Water Act (SDWA), 42 U.S.C. 300f *et seq.*, amends the general public notification regulations found at 40 CFR 141.32, and amends the public notification requirements for exceedances of the National Secondary Drinking Water Regulations for fluoride found at 40 CFR 143.5, to make them consistent with the new general public notification requirements. These changes apply to owners and operators of public water systems which fail to comply with certain requirements of the National Primary Drinking Water Regulations (NPDWRs), or certain monitoring requirements, and owners or operators of public water systems which have a variance or exemption. EPA is establishing requirements regarding the manner, form, content and frequency of the public notice.

In addition, EPA is promulgating new public notification requirements regarding lead contamination of drinking water to implement section 1417(a)(2) of the SDWA. The new public notification requirements for lead require public water systems to identify and provide notice to persons who may be affected by lead contamination in their drinking water, where such contamination results from the use of lead in the construction materials of the distribution system. These notification requirements, which apply to owners and operators of community and non-transient non-community water systems, apply in addition to the general public notification requirements for lead. EPA is today establishing requirements regarding the content, form, manner, and frequency of the lead notice.

Finally, EPA is amending the State implementation regulations found at 40 CFR Part 142, Subpart B to require States to adopt, at a minimum, the general public notification requirements found in revised § 141.32, and procedures for implementing § 141.32(b)(3)(iii), which allows States to extend the public notification time frames for certain Tier 2 monitoring violations from three months to one year.

EFFECTIVE DATE: The amended general public notice requirements under new 40 CFR 141.32, will take effect April 28, 1989. The public notice requirements for lead found at 40 CFR 141.34, the amended public notification requirements for violations of the Secondary Maximum Contaminant Level (SMCL) for fluoride found at 40 CFR 143.5, and the amended State implementation requirements found at 40 CFR Part 142, Subpart B will take effect November 27, 1987. The redesignation of 40 CFR 141.32 as 40 CFR 141.36 and the new introductory text are effective November 27, 1987. Section 141.36 expires April 28, 1989. In accordance with 40 CFR 23.7, this regulation shall be considered final Agency action for the purposes of judicial review at 1:00 p.m. eastern time on November 12, 1987.

§ 141.32 Public notification.

The requirements in this section are effective April 28, 1989. The requirements of § 141.36 apply until April 28, 1989.

(a) *Maximum contaminant level (MCL), treatment technique, and variance and exemption schedule violations.* The owner or operator of a public water system which fails to comply with an applicable MCL or treatment technique established by this part or which fails to comply with the requirements of any schedule prescribed pursuant to a variance or exemption, shall notify persons served by the system as follows:

(1) Except as provided in paragraph (a)(3) of this section, the owner or operator of a public water system must give notice:

(i) By publication in a daily newspaper of general circulation in the area served by the system as soon as possible, but in no case later than 14 days after the violation or failure. If the area served by a public water system is not served by a daily newspaper of general circulation, notice shall instead be given by publication in a weekly newspaper of general circulation serving the area; and

(ii) By mail delivery (by direct mail or with the water bill), or by hand delivery, not later than 45 days after the violation or failure. The State may waive mail or hand delivery if it determines that the owner or operator of the public water system in violation has corrected the violation or failure within the 45-day period. The State must make the waiver in writing and within the 45-day period; and

(iii) For violations of the MCLs of contaminants that may pose an acute risk to human health, by furnishing a copy of the notice to the radio and television stations serving the area served by the public water system as soon as possible but in no case later than 72 hours after the violation. The following violations are acute violations:

(A) Any violations specified by the State as posing an acute risk to human health.

(B) Violation of the MCL for nitrate as defined in § 141.11(b) and determined according to § 141.23(d).

(C) Violation of the MCL for total coliforms, when fecal coliforms or *E. coli* are present in the water distribution system, as specified in § 141.63(b).

(D) Occurrence of a waterborne disease outbreak, as defined in § 141.2, in an unfiltered system subject to the requirements of Subpart H of this part, after December 30, 1991 (see § 141.71(b)(4)).

(2) Except as provided in paragraph (a)(3) of this section, following the initial notice given under paragraph (a)(1) of this section, the owner or operator of the public water system must give notice at least once every three months by mail delivery (by direct mail or with the water bill) or by hand delivery, for as long as the violation or failure exists.

(3) (i) In lieu of the requirements of paragraphs (a) (1) and (2) of this section, the owner or operator of a community water system in an area that is not served by a daily or weekly newspaper of general circulation must give notice by hand delivery or by continuous posting in conspicuous places within the area served by the system. Notice by hand delivery or posting must begin as soon as possible, but no later than 72 hours after the violation or failure for acute violations (as defined in paragraph (a) (1) (iii) of this section), or 14 days after the violation or failure (for any other violation). Posting must continue for as long as the violation or failure exists. Notice by hand delivery must be repeated at least every three months for as long as the violation or failure exists.

(ii) In lieu of the requirements of paragraphs (a) (1) and (2) of this section, the owner or operator of a non-community water system may give notice by hand delivery or by continuous posting in conspicuous places within the area served by the system. Notice by hand delivery or posting must begin as soon as possible, but no later than 72 hours after the violation or failure for acute violations (as defined in paragraph (a) (1) (iii) of this section), or 14 days after the violation or failure (for any other violation). Posting must continue for as long as the violation or failure exists. Notice by hand delivery must be repeated at least every three months for as long as the violation or failure exists.

(b) *Other violations, variances, exemptions.* The owner or operator of a public water system which fails to perform monitoring required by section 1445(a) of the Act (including monitoring required by the National Primary Drinking Water Regulations (NPDWRs) of this part), fails to comply with a testing procedure established by this part, is subject to a variance granted under section 1415(a)(1)(A) or 1415(a)(2) of the Act, or is subject to an exemption under section 1416 of the Act, shall notify persons served by the system as follows:

(1) Except as provided in paragraph (b)(3) or (b)(4) of this section, the owner or operator of a public water system must give notice within three months of the violation or granting of a variance or exemption by publication in a daily newspaper of general circulation in the area served by the system. If the area served by a public water system is not served by a daily newspaper of general circulation, notice shall instead be given by publication in a weekly newspaper of general circulation serving the area.

(2) Except as provided in paragraph (b)(3) or (b)(4) of this section, following the initial notice given under paragraph (b)(1) of this section, the owner or operator of the public water system must give notice at least once every three months by mail delivery (by direct mail or with the water bill) or by hand delivery, for as long as the violation exists. Repeat notice of the existence of a variance or exemption must be given every three months for as long as the variance or exemption remains in effect.

(3) (i) In lieu of the requirements of paragraphs (b)(1) and (b)(2) of this section, the owner or operator of a community water system in an area that is not served by a daily or weekly newspaper of general circulation must give notice, within three months of the violation or granting of the variance or exemption, by hand delivery or by continuous posting in conspicuous places with the area served by the system. Posting must continue for as long as the violation exists or a variance or exemption remains in effect. Notice by hand delivery must be repeated at least every three months for as long as the violation exists or a variance or exemption remains in effect.

(ii) In lieu of the requirements of paragraphs (b)(1) and (b)(2) of this section, the owner or operator of a non-community water system may give notice, within three months of the violation or the granting of the variance or exemption, by hand delivery or by continuous posting in conspicuous places within the area served by the system. Posting must continue for as long as the violation exists, or a variance or exemption remains in effect. Notice by hand delivery must be repeated at least every three months for as long as the violation exists or a variance or exemption remains in effect.

(4) In lieu of the requirements of paragraphs (b)(1), (b)(2), and (b)(3) of this section, the owner or operator of a public water system, at the discretion of the State, may provide less frequent notice for minor monitoring violations as defined by the State, if EPA has approved the State's application for a program revision under § 142.16. Notice of such violations must be given no less frequently than annually.

(c) *Notice to new billing units.* The owner or operator of a community water system must give a copy of the most recent public notice for any outstanding violation of any maximum contaminant level, or any treatment technique requirement, or any variance or exemption schedule to all new billing units or new hookups prior to or at the time service begins.

(d) *General content of public notice.*

Each notice required by this section must provide a clear and readily understandable explanation of the violation, any potential adverse health effects, the population at risk, the steps that the public water system is taking to correct such violation, the necessity for seeking alternative water supplies, if any, and any preventive measures the consumer should take until the violation is corrected. Each notice shall be conspicuous and shall not contain unduly technical language, unduly small print, or similar problems that frustrate the purpose of the notice. Each notice shall include the telephone number of the owner, operator, or designee of the public water system as a source of additional information concerning the notice. Where appropriate, the notice shall be multi-lingual.

(e) *Mandatory health effects language.* When providing the information on potential adverse health effects required by paragraph (d) of this section in notices of violations of maximum contaminant levels or treatment technique requirements, or notices of the granting or the continued existence of exemptions or variances, or notices of failure to comply with a variance or exemption schedule, the owner or operator of a public water system shall include the language specified below for each contaminant. (If language for a particular contaminant is not specified below at the time notice is required, this paragraph does not apply.)

(1) *Trichloroethylene.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that trichloroethylene is a health concern at certain levels of exposure. This chemical is a common metal cleaning and dry cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set forth the enforceable drinking water standard for trichloroethylene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(2) *Carbon tetrachloride*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that carbon tetrachloride is a health concern at certain levels of exposure. This chemical was once a popular household cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for carbon tetrachloride at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(3) *1,2-Dichloroethane*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,2-dichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaning fluid for fats, oils, waxes, and resins. It generally gets into drinking water from improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for 1,2-dichloroethane at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(4) *Vinyl chloride*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that vinyl chloride is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been associated with significantly increased risks of cancer among certain

industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for vinyl chloride at 0.002 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(5) *Benzene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that benzene is a health concern at certain levels of exposure. This chemical is used as a solvent and degreaser of metals. It is also a major component of gasoline. Drinking water contamination generally results from leaking underground gasoline and petroleum tanks or improper waste disposal. This chemical has been associated with significantly increased risks of leukemia among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for benzene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(6) *1,1-Dichloroethylene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,1-dichloroethylene is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and

degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes.

Chemicals which cause adverse effects in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for 1,1-dichloroethylene at 0.007 parts per million (ppm) to reduce the risk of these adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(7) *Para-dichlorobenzene*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that para-dichlorobenzene is a health concern at certain levels of exposure. This chemical is a component of deodorizers, moth balls, and pesticides. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed to high levels over their lifetimes. Chemicals which cause adverse effects in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for para-dichlorobenzene at 0.075 parts per million (ppm) to reduce the risk of these adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(8) *1,1,1-Trichloroethane*. The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the 1,1,1-trichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaner and degreaser of metals. It generally gets into drinking water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during their working careers also suffered damage to the liver, nervous system, and

circulatory system. Chemicals which cause adverse effects among exposed industrial workers and in laboratory animals also may cause adverse health effects in humans who are exposed at lower levels over long periods of time. EPA has set the enforceable drinking water standard for 1,1,1-trichloroethane at 0.2 parts per million (ppm) to protect against the risk of these adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

(9) Fluoride.

[Note.—EPA is not specifying language that must be included in a public notice for a violation of the fluoride maximum contaminant level in this section because § 143.5 of this part includes the necessary information. See paragraph (f) of this section.]

(10) Microbiological contaminants (for use when there is a violation of the treatment technique requirements for filtration and disinfection in Subpart H of this part). The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of microbiological contaminants are a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set enforceable requirements for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water which is treated to meet EPA requirements is associated with little to none of this risk and should be considered safe.

(11) Total coliforms (To be used when there is a violation of § 141.63(a), and not a violation of § 141.63(b)). The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of total coliforms is a possible health concern. Total coliforms are common in the environment and are generally not harmful themselves. The presence of these bacteria in drinking water, however, generally is a result of a

problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set an enforceable drinking water standard for total coliforms to reduce the risk of these adverse health effects. Under this standard, no more than 5.0 percent of the samples collected during a month can contain these bacteria, except that systems collecting fewer than 40 samples/month that have one total coliform-positive sample per month are not violating the standard. Drinking water which meets this standard is usually not associated with a health risk from disease-causing bacteria and should be considered safe.

(12) Fecal Coliforms/*E. coli* (To be used when there is a violation of § 141.63(b) or both § 141.63(a) and (b)). The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that the presence of fecal coliforms or *E. coli* is a serious health concern. Fecal coliforms and *E. coli* are generally not harmful themselves, but their presence in drinking water is serious because they usually are associated with sewage or animal wastes. The presence of these bacteria in drinking water is generally a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set an enforceable drinking water standard for fecal coliforms and *E. coli* to reduce the risk of these adverse health effects. Under this standard all drinking water samples must be free of these bacteria. Drinking water which meets this standard is associated with little or none of this risk and should be considered safe. State and local health authorities recommend that consumers take the following precautions: [To be inserted by the public water system, according to instructions from State or local authorities].

(f) Public notices for fluoride.

Notice of violations of the maximum contaminant level for fluoride, notices of variances and exemptions from the maximum contaminant level for fluoride, and notices of failure to comply with variance and exemption schedules for the maximum contaminant level for fluoride shall consist of the public notice prescribed in § 143.5(b), plus a description of any steps which the system is taking to come into compliance.

(g) Public notification by the State. The State may give notice to the public required by this section on behalf of the owner or operator of the public water system if the State complies with the requirements of this section. However, the owner or operator of the public water system remains legally responsible for ensuring that the requirements of this section are met.

§ 143.5 Compliance with secondary maximum contaminant level and public notification for fluoride.

(a) Community water systems, as defined in 40 CFR 141.2(e)(i) of this title that exceed the secondary maximum contaminant level for fluoride as determined by the last single sample taken in accordance with the requirements of § 141.23 of this title or any equivalent State law, but do not exceed the maximum contaminant level for fluoride as specified by § 141.62 of this title or any equivalent State law, shall provide the notice prescribed in paragraph (b) of all billing units annually, all new billing units at the time service begins, and the State public health officer.

(b) The notice required by paragraph (a) shall contain the following language including the language necessary to replace the superscripts:

§ 142.16 Special primacy requirements.

(a) State public notification requirements. If a State exercises the option specified in § 142.32(b)(4) to authorize less frequent notice for minor monitoring violations, it must adopt a program revision enforceable under State authorities which promulgates rules specifying either: (1) which monitoring violations are minor and the frequency of public notification for such violations; or (2) by establishing criteria for determining which monitoring violations are minor and the frequency of public notification.

APPENDIX G.

Explanation of the Footnotes for the Summary of Public Notification Requirements Chart in Section 1 and Public Notification Checklists in Appendix D
FOOTNOTE 1

Alternate procedure to be used when there is no daily or weekly newspaper of general circulation.

Section 141.32(a)(3)(i), which applies to Tier 1 violations, states that "... the owner or operator of a community water system in an area that is not served by a daily or weekly newspaper of general circulation must give notice by hand delivery or by continuous posting in conspicuous places within the area served by the system. Notice by hand delivery or posting must begin as soon as possible, but no later than 72 hours after the violation or failure for acute violations (as defined in paragraph (a)(1)(iii) of this section) or 14 days after the violation or failure (for any other violation). Posting must continue for as long as the violation or failure exists. Notice by hand delivery must be repeated at least every three months for as long as the violation or failure exists. Notice by hand delivery must be repeated at least every three months for as long as the violation or failure exists."

Section 141.32(b)(3)(i), which applies to Tier 2 violations, states that "... the owner operator of a community water system in an area that is not served by a daily or weekly newspaper of general circulation must give notice, within three months of the violation or granting of the variance or exemption, by hand delivery or by continuous posting in conspicuous places with the area served by the system. Posting must continue for as long as the violation exists or a variance or exemption remains in effect. Notice by hand delivery must be repeated at least every three months for as long as the violation exists or the variance or exemption remains in effect."

FOOTNOTE 2

Waiver of notice by mail or hand delivery for Tier 1 violations.

Section 141.32(a)(1)(ii) states, "... The State may waive mail or hand delivery if it determines that the owner or operator of the public water system in violation has corrected the violation or failure within the 45-day period. The State must make the waiver in writing and within the 45-day period..."

NOTE: A supplier cannot forgo the notice on the assumption that the state will waive notice.

FOOTNOTE 3

Involves both transient and non-transient non-community water systems.

Indicates that the term "non-community system" includes both transient and non-transient non-community water systems. The definition of non-transient non-community public water system (Rules for Volatile Organic Chemicals, 40 CFR 141.2 is as follows:

"A public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year" (e.g., schools, factories).

FOOTNOTE 4

Circumstances where less frequent notice is allowed.

Section 142.16(a). "State public notification requirements," states, "If a State exercises the option...to authorize less frequent notice for minor monitoring violations, it must adopt a program revision enforceable under State authorities which promulgates rules specifying either: (1) which monitoring violations are minor and the frequency of public notification for such violations; or (2) by establishing criteria for determining which monitoring violations are minor and the frequency of public notification."

NOTE: *In this case a public water system would have to contact the primacy agent to see whether this provision is in effect for that state.*

FOOTNOTE 5

Repeat notice for non-community water systems depends upon the manner of notice.

If posting is selected as the manner of notice by a non-community water system, posting must be continuous until the violation is resolved. If hand delivery is selected as the manner of notice, notice by hand delivery must be repeated quarterly until the violation is resolved.

APPENDIX H.

National Secondary Drinking Water Regulations

● Section 143.5: Compliance with the Secondary Maximum Contaminant Level and Public Notification for Exceedances of the Secondary Standard for Fluoride

§ 143.5 Compliance with secondary maximum contaminant level and public notification for fluoride.

- (a) Community water systems, as defined in 40 CFR 141.2(e)(i) of this title, that exceed the secondary maximum contaminant level for fluoride as determined by the last single sample taken in accordance with the requirements of §141.23 of this title or any equivalent State law, but do not exceed the maximum contaminant level for fluoride as specified by §141.62 of this title or any equivalent State law, shall provide the notice prescribed in paragraph (b) of all billing units annually, all new billing units at the time service begins and the State public health officer.
- (b) The notice required by paragraph (a) shall contain the following language including the language necessary to replace the superscripts:

PUBLIC NOTICE

Dear User,

The U.S. Environmental Protection Agency requires that we send you this notice on the level of fluoride in your drinking water. The drinking water in your community has a fluoride concentration of _____ milligrams ^① per liter (mg/l).

Federal regulations require that fluoride, which occurs naturally in your water supply, not exceed a concentration of 4.0 mg/l in drinking water. This is an enforceable standard called a Maximum Contaminant Level (MCL), and it has been established to protect the public health. Exposure to drinking water levels above 4.0 mg/l for many years may result in some cases of crippling skeletal fluorosis, which is a serious bone disorder.

Federal law also requires that we notify you when monitoring indicates that the fluoride in your drinking water exceeds 2.0 mg/l. This is intended to alert families about dental problems that might affect children under nine years of age. The fluoride concentration of your water exceeds this federal guideline.

Fluoride in children's drinking water at levels of approximate 1 mg/l reduces the number of dental cavities. However, some children exposed to levels of fluoride greater than about 2.0 mg/l may develop dental fluorosis. Dental fluorosis, in its moderate and severe forms, is a brown staining and/or pitting of the *permanent* teeth.

Because dental fluorosis occurs only when *developing* teeth (before they erupt from the gums) are exposed to elevated fluoride levels, households without children are not expected to be affected by this level of fluoride. Families with children under the age of nine are encouraged to seek other sources of drinking water for their children to avoid the possibility of staining and pitting.

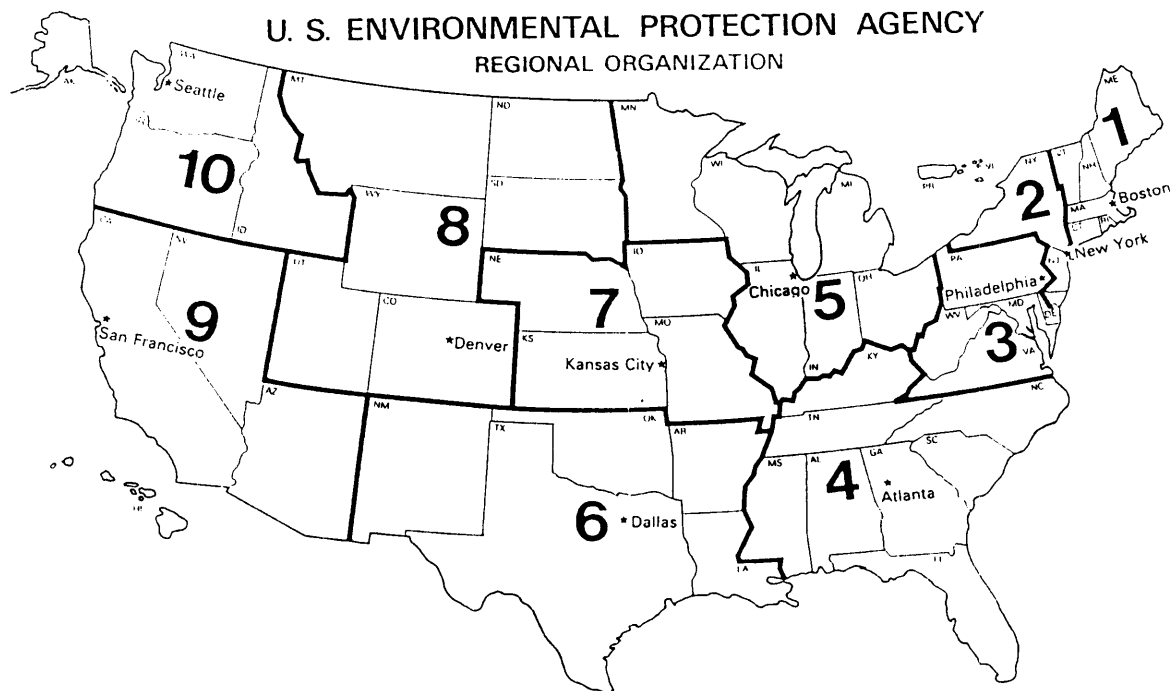
Your water supplier can lower the concentration of fluoride in your water so that you will still receive the benefits of cavity prevention while the possibility of stained and pitted teeth is minimized. Removal of fluoride may increase your water costs. Treatment systems are also commercially available for home use. Information on such systems is available at the address given below. Low fluoride bottled drinking water that would meet all standards is also commercially available.

For further information contact _____ ^② at your water system.

^① PWS shall insert the compliance result which triggered notification under this part.

^② PWS shall insert the name, address, and telephone number of a contact person at the PWS.

(c) The effective date of this section is May 2, 1986.

APPENDIX I.**Environmental Protection Agency Regional Offices****EPA Regional Offices****EPA Region 1**

Water Supply Branch
JFK Federal Building
Boston, MA 02203
(617) 565-03610

*Connecticut, Massachusetts, Maine,
New Hampshire, Rhode Island,
Vermont*

EPA Region 2

Drinking Water/Groundwater
Protection Branch
26 Federal Plaza
New York, NY 10278
(212) 264-1800

*New Jersey, New York, Puerto Rico,
Virgin Islands*

EPA Region 3

Drinking Water/Groundwater
Protection Branch
841 Chestnut Street
Philadelphia, PA 19107
(215) 587-8227

*Delaware, Maryland, Pennsylvania,
Virginia, West Virginia, District of
Columbia*

EPA Region 4

Office of Drinking Water
345 Courtland Street, N.E.
Atlanta, GA 30365
(404) 347-2913

*Alabama, Florida, Georgia, Kentucky,
Mississippi, North Carolina, South
Carolina, Tennessee*

EPA Region 5

Safe Drinking Water Branch
230 South Dearborn Street
Chicago, IL 60604
(312) 353-2650

*Illinois, Indiana, Michigan,
Minnesota, Ohio, Wisconsin*

EPA Region 6

Water Supply Branch
1445 Ross Avenue
Dallas, TX 75270
(214) 655-7150

*Arkansas, Louisiana, New Mexico,
Oklahoma, Texas*

EPA Region 7

Drinking Water Branch
726 Minnesota Avenue
Kansas City, KS 66101
(913) 236-2815

Iowa, Kansas, Missouri, Nebraska

EPA Region 8

Drinking Water Branch
999 18th Street Suite 500
Denver, CO 80202-2405
(303) 293-1407

*Colorado, Montana, North Dakota,
South Dakota, Utah, Wyoming*

EPA Region 9

Drinking Water Branch
215 Fremont Street
San Francisco, CA 94105
(415) 974-0912

*Arizona, California, Hawaii, Nevada,
American Samoa, Guam, Common-
wealth of the Northern Mariana
Islands*

EPA Region 10

Drinking Water Branch
1200 Sixth Avenue
Seattle, WA 98101
(206) 442-4092

Alaska, Idaho, Oregon, Washington

APPENDIX J.

State Public Drinking Water Program Offices

Alabama

Water Supply Branch
Department of Environmental Management
1751 Congressional W. L. Dickinson Drive
Montgomery, Alabama 36130

Alaska

Alaska Drinking Water Program
Wastewater and Water Treatment Section
Department of Environmental Conservation
Post Office Box O
Juneau, Alaska 99811-1800

Arizona

Field Services Section
Office of Water Quality
2655 East Magnolia Street
Phoenix, Arizona 85034

Arkansas

Division of Engineering
Arkansas Department of Health
4815 West Markham Street
Little Rock, Arkansas 72205-3867

California

Public Water Supply Branch
California Department of Health Services
714 P Street, Room 692
Sacramento, California 95814

Colorado

Drinking Water Unit
Colorado Department of Health
4210 East 11th Avenue
Denver, Colorado 80220

Connecticut

Water Supplies Section
Connecticut Department of Health Services
150 Washington Street
Hartford, Connecticut 06106

Delaware

Office of Sanitary Engineering
Delaware Division of Public Health
Robbins Building
Post Office Box 637
Dover, Delaware 19903

District of Columbia

Washington, DC (not a primacy agency)
Water Hygiene Branch
Department of Consumer and Regulatory Affairs
5010 Overlook Avenue, S.W.
Washington, DC 20032
*The primacy agency for the District of Columbia is
EPA Region 3.*

Florida

Drinking Water Program
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Georgia

Water Resource Management Branch
Environmental Protection Division
Department of Natural Resources
270 Washington Street, S.W.
Atlanta, Georgia 30334

Hawaii

Drinking Water Program
Sanitation Branch
Environmental Protection and Health Services
Division
Post Office Box 3378
Honolulu, Hawaii 96801

Idaho

Bureau of Water Quality
Division of Environment
Idaho Department of Health and Welfare
Statehouse
Boise, Idaho 83720

Illinois

Division of Public Water Supplies
Illinois Environmental Protection Agency
2200 Churchill Road
Post Office Box 19276
Springfield, Illinois 62794-9276

Indiana (not a primacy agency)

Public Water Supply Section
Office of Water Management
Indiana Department of Environmental
Management
5500 West Bradbury Avenue
Indianapolis, Indiana 46241
The primacy agency for Indiana is EPA Region 5.

Iowa

Environmental Protection Division
Iowa Department of Natural Resources
Wallace State Office Building
900 East Grand Street
Des Moines, Iowa 50319

Kansas

Bureau of Water Protection
Kansas Department of Health and the
Environment
Forbes Field
Building 740
Topeka, Kansas 66620

Kentucky

Division of Water
Department of Environmental Protection
18 Reilly Road, Fort Boone Plaza
Frankfort, Kentucky 40601

Louisiana

Office of Public Health
Louisiana Department of Health and Hospitals
Post Office Box 60630
New Orleans, Louisiana 70160

Maine

Drinking Water Program
Division of Health Engineering
Maine Department of Human Services
State House (STA 10)
Augusta, Maine 04333

Maryland

Water Supply Program
Maryland Department of the Environment
Point Breeze Building 40, Room 8L
2500 Broening Highway
Dundalk, Maryland 21224

Massachusetts

Division of Water Supply
Department of Environmental Quality
Engineering
One Winter Street, 9th Floor
Boston, Massachusetts 02108

Michigan

Division of Water Supply
Michigan Department of Public Health
Post Office Box 30195
Lansing, Michigan 48909

Minnesota

Section of Public Water Supplies
Minnesota Department of Health
717 Delaware Street
Post Office Box 9441
Minneapolis, Minnesota 55440

Mississippi

Division of Water Supply
State Board of Health
Post Office Box 1700
Jackson, Mississippi 39215-1700

Missouri

Public Drinking Water Program
Division of Environmental Quality
Post Office Box 176
Jefferson City, Missouri 65102

Montana

Water Quality Bureau
Department of Health and Environmental
Sciences
Cogswell Building, Room A206
Helena, Montana 59620

Nebraska

Division of Environmental Health and Housing
Surveillance
Nebraska Department of Health
P.O. Box 95007
Lincoln, Nebraska 68509

Nevada

Public Health Engineering
Nevada Department of Human Resources
Consumer Health Protection Services
505 East King Street, Room 103
Carson City, Nevada 89710

New Hampshire

Water Supply Engineering Bureau
Department of Environmental Services
Post Office Box 95, Hazen Drive
Concord, New Hampshire 03302-0095

New Jersey

Bureau of Safe Drinking Water
Division of Water Resources
New Jersey Department of Environmental
Protection
Post Office Box CN-029
Trenton, New Jersey 06825

New Mexico

Drinking Water Section
New Mexico Health and Environment
Department
1190 St. Francis Drive
Santa Fe, New Mexico 87503

New York

Bureau of Public Water Supply Protection
New York Department of Health
Room 406 University Place
Albany, New York 12203-3399

North Carolina

Public Water Supply Branch
Division of Health Services
Department of Human Resources
1330 Step St. Mary's Street
Post Office Box 2091
Raleigh, North Carolina 27602-2091

North Dakota

Division of Water Supply and Pollution Control
ND State Department of Health and
Consolidated Laboratories
1200 Missouri Avenue
Post Office Box 5520
Bismarck, North Dakota 58502-5520

Ohio

Office of Public Drinking Water
Ohio Environmental Protection Agency
1800 Watermark Drive
Post Office Box 1049
Columbus, Ohio 43266-0149

Oklahoma

Water Facility Engineering Service
Oklahoma State Department of Health
Post Office Box 53551
Oklahoma City, Oklahoma 73152

Oregon

Drinking Water Program
Health Division
Department of Human Resources
1400 S.W. Fifth Avenue, Room 611
Portland, Oregon 97201

Pennsylvania

Division of Water Supplies
Department of Environmental Resources
Post Office Box 2357
Harrisburg, Pennsylvania 17120

Rhode Island

Division of Drinking Water Quality
Rhode Island Department of Health
75 Davis Street, Cannon Building
Providence, Rhode Island 02908

South Carolina

Bureau of Drinking Water Protection
Department of Health and Environmental
Control
2600 Bull Street
Columbia, South Carolina 29201

South Dakota

Office of Drinking Water
Department of Water and Natural Resources
Joe Foss Building
523 Capital Avenue, East
Pierre, South Dakota 57501

Tennessee

Division of Water Supply
Tennessee Department of Health and
Environment
150 9th Avenue, North
Nashville, Tennessee 37219-5404

Texas

Bureau of Environmental Health
Texas Department of Health
1100 West 49th Street
Austin, Texas 78756-3199

Utah

Bureau of Drinking Water/Sanitation
Utah Department of Health
Post Office Box 16690
Salt Lake City, Utah 84116-0690

Vermont

Environmental Health Division
Vermont Department of Health
60 Main Street
Post Office Box 70
Burlington, Vermont 05402

Virginia

Division of Water Supply Engineering
Virginia Department of Health
James Madison Building
109 Governor Street
Richmond, Virginia 23219

Washington

Drinking Water Program Section
Department of Social and Health Services
Mail Stop LD-11, Building 3
Airdustrial Park
Olympia, Washington 98504

West Virginia

Environmental Engineering Division
Office of Environmental Health Services
State Department of Health
Room 554
1800 Washington Street, East
Charleston, West Virginia 25305

Wisconsin

Bureau of Water Supply
Department of Natural Resources
Post Office Box 7921
Madison, Wisconsin 53707

Wyoming (not a primacy agency)

DEQ - Water Quality
Herschler Building
4th Floor West
Cheyenne, Wyoming 82002
The primacy agency for Wyoming is EPA Region 4.

Insular Areas

Department of Natural Resources
Government of Virgin Islands
179 Altona Welgunst
Saint Thomas, Virgin Islands 00802

Water Supply Supervision Program
Puerto Rico Department of Health
Post Office Box 70184
San Juan, Puerto Rico 00936

American Samoa Environmental Protection
Agency
Office of the Governor
American Samoa Government
Pago Pago, AS 96799

Division of Environmental Quality
Commonwealth of the Northern Mariana
Islands
Dr. Torres Hospital
P.O. Box 1304
Saipan, MP 96950

Guam Environmental Protection Agency
IT&E Harmon Plaza
Complex Unit D-107
130 Rojas Street
Harmon, Guam 96911

Department of Human Resources
Federated States of Micronesia
P.O. Box 312
Kolonias, Pohnpei FM 96941

Environmental Protection Authority
Republic of the Marshall Islands
P.O. Box 1322
Majuro, MH 96960

Palau Environmental Quality Protection Board
Republic of Palau
P.O. Box 1484
Koror, Republic of Palau 96940

Indian Tribes

As of August, 1989, the EPA is the primacy agency for Indian Tribes. See Appendix I for addresses of EPA Regional Offices.