

**PART VII  
LEAD AND COPPER**

**§ 701 PURPOSE**

- A. These regulations apply to community water systems, non-transient non-community water systems. Effective dates for §§ 704, 707, 708, 712 and 713 became effective on July 7, 1991, and for §§ 701, 705, 706, 709, 710, and 711 became effective on December 7, 1992.
- B. These regulations establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education. These requirements are triggered, in some cases, by lead and copper action levels measured in samples collected at consumers' taps.

**§ 702 PROHIBITION ON USE OF LEAD PIPES, SOLDER, AND FLUX**

- A. General Requirements
  - 1. Prohibition. Any pipe, solder, or flux, which is used after June 19, 1986, in the installation or repair of:
    - a. Any CWS or NTNCWS, or
    - b. Any plumbing in a residential or non-residential facility providing water for human consumption which is connected to a CWS or NTNCWS shall be lead free as defined in §104. This subsection shall not apply to leaded joints necessary for the repair of cast iron pipes.

Notice shall be provided notwithstanding the absence of a violation of any NNPDR, according to § 602.

- B. Navajo Nation Enforcement
  - 1. Enforcement of prohibition. The requirements of subsection (A)(1) of this section shall be enforced in the Navajo Nation effective June 19, 1988. The Director shall enforce such requirements through local plumbing codes, or such other means of enforcement as the Director may determine to be appropriate.
- C. Penalties: If the Administrator determines that the Director is not enforcing the requirements of subsection (A) of this section, as required pursuant to subsection (B), the Administrator may withhold up to 5% of Federal funds available to the PWSSP for program grants under § 1443 (a) of the Act.

**§ 703 COMPLIANCE**

- A. Lead and copper action levels.
  - 1. The lead action level is exceeded if the concentration of lead in more than 10 % of tap water samples collected during any sampling period conducted in accordance with § 704 is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L).
  - 2. The copper action level is exceeded if the concentration of copper in more than 10 % of tap water samples collected during any sampling period conducted in accordance with § 704 is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L).
  - 3. The 90th percentile lead and copper levels shall be computed as follows:
    - a. The results of all lead or copper samples taken during a sampling period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.
    - b. The number of samples taken during the sampling period shall be multiplied by 0.9.
    - c. The contaminant concentration in the numbered sample yielded by the calculation in subsection (A)(3)(b) is the 90th percentile contaminant level.
    - d. For CWSs and NTNCWSs serving fewer than 100 people that collect 5 samples per sampling period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

- B. Corrosion control treatment requirements.
  - 1. All CWSs and NTNCWSs shall install and operate optimal corrosion control treatment.
  - 2. Any CWSs and NTNCWSs that complies with the applicable corrosion control treatment requirements specified by the Director under §§ 705 and 706 shall be deemed in compliance with the treatment requirement contained in subsection (B) (1) of this section.
- C. Source water treatment requirements.
  - 1. Any CWS or NTNCWS exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the Director under § 709.
- D. Lead service line replacement requirements.
  - 1. Any CWS or NTNCWS exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in § 710.
- E. Sampling and analytical requirements.
  - 1. Tap water sampling for lead and copper, sampling for water quality parameters, source water sampling for lead and copper, and analyses of the sampling results under this part shall be completed in compliance with §§ 704, 707 and 708. The sampling methodology can be found in Appendix C-Lead and Copper.
- F. Public education requirements.
  - 1. Any CWS or NTNCWS exceeding the lead action level shall implement the public education requirements contained in § 711.
- G. Reporting requirements.
  - 1. A CWS or NTNCWS shall report to the Director any information required by the treatment provisions of this part and § 712.
- H. Recordkeeping requirements.
  - 1. A CWS or NTNCWS shall maintain records in accordance with § 713.
- I. Violation of NNPDRs.
  - 1. Failure to comply with the applicable requirements of this part shall constitute a violation of the NNPDR for lead and/or copper.

**§ 704 SAMPLING REQUIREMENTS FOR LEAD AND COPPER IN TAP WATER**

- A. Sample site location.
  - 1. By the applicable date for commencement of sampling under subsection (D) (1) and (D) (2) of this section, each CWS or NTNCWS shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large enough to ensure that the CWS or NTNCWS can collect the number of lead and copper tap samples required in subsection (C) of this section. All sites from which the first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.
  - 2. A CWS or NTNCWS shall use the information on lead, copper, and galvanized steel that it is required to collect under § Appendix C (702-C) of these regulations (special sampling for corrosivity characteristics) when conducting a materials evaluation. When an evaluation of the information collected pursuant to § Appendix C (702-C) is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in subsection (A) of this section, the CWS or NTNCWS shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the CWS or NTNCWS shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):
    - a. All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

- b. All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and
  - c. All existing water quality information, which includes the results of all prior analyses of the CWS or NTNCWS or individual structures connected to the CWS or NTNCWS, indicating locations that may be particularly susceptible to high lead or copper concentrations.
3. The sampling sites selected for a CWS's sampling pool ("tier 1 sampling sites") shall consist of single family structures that:
    - a. Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or
    - b. Are served by a lead service line. When multiple-family residences comprise at least 20 % of the structures served by a CWS or NTNCWS, the system may include these types of structures in its sampling pool.
  4. Any CWS with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites" consisting of buildings, including multiple-family residences that:
    - a. Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or
    - b. Are served by a lead service line.
  5. Any CWS with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites" consisting of single family structures that contain copper pipes with lead solder installed before 1983. A CWS with insufficient tier 1, tier 2, and tier 3 sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For the purpose of this subsection, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.
  6. The sampling sites selected for a NTNCWS ("tier 1 sampling sites") shall consist of buildings that:
    - a. Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or
    - b. Are served by a lead service line.
  7. A NTNCWS with insufficient tier 1 sites that meet the targeting criteria in subsection (A) (6) of this section shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the NTNCWS shall use representative sites throughout the distribution system. For the purpose of this subsection, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.
  8. Any CWS or NTNCWS whose distribution system contains lead service lines shall draw 50 % of the samples it collects during each sampling period from sites that contain lead pipes, or copper pipes with lead solder, and 50 % of those samples from sites served by a lead service line. A CWS or NTNCWS that cannot identify a sufficient number of sampling sites served by a lead service line shall collect first draw samples from all of the sites identified as being served by such lines.

B. Sample collection methods.

1. All tap samples for lead and copper collected in accordance with this part, with the exception of lead service line samples collected under § 710 (C), and samples collected under subsection (B) (5) of this section, shall be first draw samples.
2. Each first-draw tap sample for lead and copper shall be one liter in volume and shall have stood motionless in the plumbing system of each sampling site for at least six hours. First-draw samples from residential housing shall be collected from the cold-water kitchen tap or bathroom sink tap. First-draw samples from a non-residential building shall be collected at an interior tap from which water is typically drawn for consumption.

Non-first-draw samples collected in lieu of first-draw samples pursuant to subsection (B) (5) of this section shall be one liter in volume and shall be collected at an interior

tap from which water is typically drawn for consumption. First-draw samples may be collected by the CWS or NTNCWS owner/operator or the owner/operator may allow residents to collect first draw samples after instructing the residents of the sampling procedures specified in this subsection. To avoid problems of residents handling nitric acid, acidification of first draw samples may be done up to 14 days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the approved EPA method before the sample can be analyzed. If a CWS or NTNCWS owner/operator allows residents to perform sampling, the owner/operator may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

3. Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three ways:
  - a. At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;
  - b. Tapping directly into the lead service line; or
  - c. If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.
4. A CWS or NTNCWS owner/operator shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the CWS or NTNCWS owner/operator cannot gain entry to a sampling site in order to collect a follow-up tap sample, the CWS or NTNCWS owner/operator may collect the follow-up tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within reasonable proximity of the original site.
5. A NTNCWS, or a CWS that meets the criteria of § 711 (C) (7) (a) and (b), that does not have enough taps that can supply first-draw samples, as defined in § 104, may apply to the Director in writing to substitute non-first-draw samples. Such water systems must collect as many first-draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The Director has the discretion to waive the requirement for prior Director-approval of non-first-draw sample sites selected by the water system, either through these regulations or written notification to the water system.

C. Number of samples. CWS or NTNCWS owner/operator shall collect at least one sample during each sampling period specified in subsection (D) of this section from the number of sites listed in the first column below ("standard sampling"). A CWS or NTNCWS conducting reduced sampling under subsection (D) (4) of this section shall collect at least one sample from the number of sites specified in the second column ("reduced monitoring") below during each sampling period specified in subsection (D) (4) of this section. Such reduced monitoring sites shall be representative of the sites required for standard monitoring. The Director may specify sampling locations when a water system is conducting reduced monitoring. The table is as follows:

**TABLE 700.1 SAMPLING SIZE**

System Size (# people served)	# of Sites (Standard Sampling)	# of Sites (Reduced Sampling)
>100,000	100	50
10,001 - 100,000	60	30
3,301 - 10,000	40	20
501 - 3,300	20	10
101 - 500	10	5
≤ 100	5	5

D. SAMPLING REQUIREMENTS

1. All large CWSs or NTNCWSs shall sample during two consecutive six-month periods.

2. All small and medium-size CWSs or NTNCWSs shall sample during each six-month sampling period until:
  - a. The CWS or NTNCWS exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under § 706, in which case the water system shall continue sampling in accordance with subsection (D) (3) of this section, or
  - b. The CWS or NTNCWS meets the lead or copper action levels during two consecutive six-month sampling periods, in which case the water system may reduce sampling in accordance with subsection (D) (5) of this section.
3. Sampling after installation of corrosion control and source water treatment.
  - a. Any large CWS or NTNCWS which installs optimal corrosion control treatment pursuant to § 706 (D) (4) shall sample during two consecutive six-month sampling periods by the date specified in § 706 (D) (5).
  - b. Any small or medium-size CWS or NTNCWS which installs optimal corrosion control treatment pursuant to § 706 (E) (5) shall sample during two consecutive six-month sampling periods by the date specified in § 706 (E) (6).
  - c. Any CWS or NTNCWS which installs source water treatment pursuant to § 709 (A) (3) shall sample during two consecutive six-month sampling periods by the date specified in § 709 (A) (4).
4. Sampling after the Director specifies water quality parameter values for optimal corrosion control.

After the Director specifies the value for water quality control parameters under § 705 (F), the CWS or NTNCWS shall sample during each subsequent six-month sampling period, with the first sampling period to begin on the date the Director specifies the optimal values under § 705 (F).

5. Reduced sampling:
  - a. A small or medium-size CWS or NTNCWS that meets the lead and copper action levels during each of two consecutive six-month sampling periods may reduce the number of samples in accordance with subsection (C) of this section, and reduce the frequency of sampling to once per year.
  - b. Any CWS or NTNCWS that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Director under § 705 (F) during each of two consecutive six-month sampling periods may reduce the frequency of monitoring to once per year and reduce the number of lead and copper samples in accordance with subsection (C) of this section if it receives written approval from the Director. The Director shall review monitoring, treatment and other relevant information submitted by the CWS or NTNCWS in accordance with § 712, and shall notify the water system in writing when it determines the water system is eligible to commence reduced monitoring pursuant to this subsection. The Director shall review, and where appropriate, revise the determination when the CWS or NTNCWS submits new sampling or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.
  - c. A small or medium-size CWS or NTNCWS that meets the lead and copper action levels during three consecutive years of sampling may reduce the frequency of sampling for lead and copper from annually to once every three years. Any CWS or NTNCWS that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Director under § 705 (F) during three consecutive years of sampling may request that the Director allow the CWS or NTNCWS to reduce the frequency of sampling from annually to once every three years if it receives written approval from the Director. The Director shall review monitoring, treatment, and other relevant information submitted by the CWS or NTNCWS in accordance with § 712, and shall notify the water system in writing when it determines the water system is eligible to reduce the frequency of monitoring to once every three years. The Director shall review, and where appropriate, revise the determination when the water system submits new sampling or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.
  - d. A CWS or NTNCWS that reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling

sites identified in subsection (A) of this section. A CWS or NTNCWS sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August or September unless the Director has approved a different sampling period in accordance with subsection (D) (5) (d) (i) of this section.

- i. The Director, at his/her discretion, may approve a different period for conducting the lead and copper tap sampling for water systems collecting a reduced number of samples. Such a period shall be no longer than four consecutive months and must represent a time of normal operation where the highest levels of lead are most likely to occur. For a NTNCWS that does not operate during the months of June through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the Director shall designate a period that represents a time of normal operation for the water system.
  - ii. CWSs or NTNCWSs monitoring annually, that have been collecting samples during the months of June through September and that receive Director approval to alter their sample collection period under subsection (D) (5) (d) (i) of this section, must collect their next round of samples during a time period that ends no later than 21 months after the previous round of sampling. CWSs or NTNCWSs monitoring triennially that have been collecting samples during the months of June through September, and receive Director approval to alter the sampling collection period as per subsection (D) (5) (d) (i) of this section, must collect their next round of samples during a time period that ends no later than 45 months after the previous round of sampling. Subsequent rounds of sampling must be collected annually or triennially, as required by this section. Small CWSs or NTNCWSs with waivers, granted pursuant to subsection (G) of this section, that have been collecting samples during the months of June through September and receive Director approval to alter their sample collection period under subsection (D) (5) (d) (i) of this section must collect their next round of samples before the end of the 9-year period.
- e. Any CWS or NTNCWS that demonstrates for two consecutive 6-month monitoring periods that the tap water lead level computed under § 703 (A) (3) is less than or equal to 0.005 mg/L and the tap water copper level computed under § 703(A) (3) (a) is less than or equal to 0.65 mg/L may reduce the number of samples in accordance with subsection (C) of this section and reduce the frequency of sampling to once every three calendar years.
- f. A small or medium-size CWS or NTNCWS subject to reduced sampling that exceeds the lead or copper action level shall resume sampling in accordance with subsection (D) (4) of this section and collect the number of samples specified for standard sampling under subsection (C) of this section. Such CWS or NTNCWS shall also conduct water quality parameter sampling in accordance with § 707(B), (C) or (D) (as appropriate) during the sampling period in which it exceeded that action level. Any CWS or NTNCWS may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in subsection (C) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of subsection (D) (5) (a) of this section and/or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either subsection (D) (5) (c) or (D) (5) (e) of this section.
- i. Any CWS or NTNCWS subject to the reduced monitoring frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the Director under § 705(F) for more than nine days in any six-month period specified in § 707(D) shall conduct tap water sampling for lead and copper at the frequency specified in subsection (D) (4) of this section, collect the number of samples specified for standard monitoring under subsection (C) of this section, and shall resume monitoring for water quality parameters within the distribution system in accordance with § 707 (D). Such a water system may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:
    1. The CWS or NTNCWS may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in subsection (C) of this section after it has completed two subsequent six-month rounds of monitoring that meet the criteria of subsection (D) (5) (b) of this section and the water system has received written approval

from the Director that it is appropriate to resume reduced monitoring on an annual frequency.

2. The CWS or NTNCWS may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either subsection (D) (5) (c) or (D) (5) (e) of this section and the water system has received written approval from the Director that it is appropriate to resume triennial monitoring.

3. The CWS or NTNCWS may reduce the number of water quality parameter tap water samples required in accordance with § 707(E) (1) and the frequency with which it collects such samples in accordance with § 707(E) (2). Such a CWS or NTNCWS may not resume triennial monitoring for water quality parameters at the tap until it demonstrates, in accordance with the requirements of § 707(E) (2), that it has re-qualified for triennial monitoring.

g. Any CWS or NTNCWS subject to a reduced monitoring frequency under subsection (D) (5) of this section that either adds a new source of water or changes any water treatment shall inform the Director in writing in accordance with § 712(A) (3). The Director may require the CWS or NTNCWS to resume sampling in accordance with subsection (D) (4) of this section and collect the number of samples specified for standard monitoring under subsection (C) of this section or take other appropriate steps such as increased water quality parameter monitoring or re-evaluation of its corrosion control treatment given the potentially different water quality considerations.

E. Additional sampling by CWSs or NTNCWSs. The results of any sampling conducted in addition to the minimum requirements of this section shall be considered by the CWS or NTNCWS and the Director in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this section.

F. Invalidation of lead or copper tap water samples.

A sample invalidated under this subsection does not count toward determining lead or copper 90th percentile levels under § 703(A) (3) or toward meeting the minimum monitoring requirements of subsection (C) of this section.

1. The Director may invalidate a lead or copper tap water sample at least if one of the following conditions is met.

a. The laboratory establishes that improper sample analysis caused erroneous results.

b. The Director determines that the sample was taken from a site that did not meet the site selection criteria of this section.

c. The sample container was damaged in transit.

d. There is substantial reason to believe that the sample was subject to tampering.

2. The CWS or NTNCWS must report the results of all samples to the Director and all supporting documentation for samples the water system believes should be invalidated.

3. To invalidate a sample under subsection (F) (1) of this section, the decision and the rationale for the decision must be documented in writing. The Director may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.

4. The CWS or NTNCWS must collect replacement samples for any samples invalidated under this section if, after the invalidation of one or more samples, the water system has too few samples to meet the minimum requirements of subsection (C) of this section. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the Director invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

G. Monitoring waivers for small CWSs or NTNCWSs.

Any small CWS or NTNCWS that meets the criteria of this subsection may apply to the Director to reduce the frequency of monitoring for lead and copper under this section to once every nine years (i.e., a "full waiver") if it meets all of the materials criteria specified in subsection (G)(1) of this section and all of the monitoring criteria specified in subsection (G)(2) of this section. If these regulations permit, any small CWS or NTNCWS that meets the criteria in subsections (G)(1) and (2) of this section only for lead, or only for copper, may apply to the Director for a waiver to reduce the frequency of tap water monitoring to once every nine years for that contaminant only (i.e., a "partial waiver").

1. Materials criteria.

The CWS or NTNCWS must demonstrate that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the water system, are free of lead-containing materials and/or copper-containing materials, as those terms are defined in this subsection, as follows:

a. Lead.

To qualify for a full waiver, or a waiver of the tap water monitoring requirements for lead (i.e., a "lead waiver"), the water system must provide certification and supporting documentation to the Director that the water system is free of all lead-containing materials, as follows:

- i. It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers; and
- ii. It is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless such fittings and fixtures meet the specifications of any standard established pursuant to §201 of the NNSDWA.

b. Copper.

To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper (i.e., a "copper waiver"), the water system must provide certification and supporting documentation to the Director that the water system contains no copper pipes or copper service lines.

2. Monitoring criteria for waiver issuance.

The CWS or NTNCWS must have completed at least one 6-month round of standard tap water monitoring for lead and copper at sites approved by the Director and from the number of sites required by subsection (C) of this section and demonstrate that the 90th percentile levels for any and all rounds of monitoring conducted since the water system became free of all lead-containing and/or copper-containing materials, as appropriate, meet the following criteria.

- a. Lead levels. To qualify for a full waiver, or a lead waiver, the CWS or NTNCWS must demonstrate that the 90th percentile lead level does not exceed 0.005 mg/L.
- b. Copper levels. To qualify for a full waiver, or a copper waiver, the CWS or NTNCWS must demonstrate that the 90th percentile copper level does not exceed 0.65 mg/L.

3. Director approval of waiver application.

The Director shall notify the CWS or NTNCWS of its waiver determination, in writing, setting forth the basis of the decision and any condition of the waiver. As a condition of the waiver, the Director may require the water system to perform specific activities (e.g., limited monitoring, periodic outreach to customers to remind them to avoid installation of materials that might void the waiver) to avoid the risk of lead or copper concentration of concern in tap water. The small CWS or NTNCWS must continue monitoring for lead and copper at the tap as required by subsections (D)(1) through (D)(4) of this section, as appropriate, until it receives written notification from the Director that the waiver has been approved.

4. Monitoring frequency for CWSs or NTNCWSs with waivers.

- a. A CWS or NTNCWS with a full waiver must conduct tap water monitoring for lead and copper in accordance with subsection (D)(5)(d) of this section at the reduced number of sampling sites identified in subsection (C) of this section at least once every nine years and provide the materials certification specified in subsection

(G)(1) of this section for both lead and copper to the Director along with the monitoring results.

- b. A CWS or NTNCWS with a partial waiver must conduct tap water monitoring for the waived contaminant in accordance with subsection (D)(5)(d) of this section at the reduced number of sampling sites specified in subsection (C) of this section at least once every nine years and provide the materials certification specified in subsection (G)(1) of this section pertaining to the waived contaminant along with the monitoring results. Such a water system also must continue to monitor for the non-waived contaminant in accordance with requirements of subsections (D)(1) through (D)(5) of this section, as appropriate.
- c. If a CWS or NTNCWS with a full or partial waiver adds a new source of water or changes any water treatment, the water system must notify the Director in writing within sixty days of the change in accordance with § 712(A)(3). The Director has the authority to require the water system to add or modify waiver conditions (e.g., require re-certification that the water system is free of lead-containing and/or copper-containing materials, require additional round(s) of monitoring), if it deems such modifications are necessary to address treatment or source water changes at the water system.
- d. If a CWS or NTNCWS with a full or partial waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, as appropriate, (e.g., as a result of new construction or repairs), the water system shall notify the Director in writing no later than 60 days after becoming aware of such a change.

5. Continued eligibility.

If the CWS or NTNCWS continues to satisfy the requirements of subsection (G)(4) of this section, the waiver will be renewed automatically, unless any of the conditions listed in subsections (G)(5)(a) through (G)(5)(c) of this section occurs. A water system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria of subsections (G)(1) and (G)(2) of this section.

- a. A CWS or NTNCWS with a full waiver or a lead waiver no longer satisfies the materials criteria of subsection (G)(1)(a) of this section or has a 90th percentile lead level greater than 0.005 mg/L.
- b. A CWS or NTNCWS with a full waiver or a copper waiver no longer satisfies the materials criteria of subsection (G)(1)(b) of this section or has a 90th percentile copper level greater than 0.65 mg/L.
- c. The Director notifies the CWS or NTNCWS, in writing, that the waiver has been revoked, setting forth the basis of the decision.

6. Requirements following waiver revocation.

A CWS or NTNCWS whose full or partial waiver has been revoked by the Director is subject to the corrosion control treatment and lead and copper tap water monitoring requirements, as follows:

- a. If the CWS or NTNCWS exceeds the lead and/or copper action level, the water system must implement corrosion control treatment in accordance with the deadlines specified in § 706(E), and any other applicable requirements of this part.
- b. If the CWS or NTNCWS meets both the lead and the copper action level, the water system must monitor for lead and copper at the tap no less frequently than once every three years using the reduced number of sample sites specified in subsection (C) of this section.

7. Pre-existing waivers.

Small CWS or NTNCWS waivers approved by the Director in writing prior to the promulgation of these regulations shall remain in effect under the following conditions:

- a. If the CWS or NTNCWS has demonstrated that it is both free of lead-containing and copper-containing materials, as required by subsection (G)(1) of this section and that its 90th percentile lead levels and 90th percentile copper levels meet the criteria of subsection (G)(2) of this section, the waiver remains in effect so long as the water system continues to meet the waiver eligibility criteria of subsection (G)(5) of this section. The first round of tap water monitoring conducted pursuant

to subsection (G)(4) of this section shall be completed no later than nine years after the last time the water system has monitored for lead and copper at the tap.

- b. If the CWS or NTNCWS has met the materials criteria of subsection (G)(1) of this section but has not met the monitoring criteria of subsection (G)(2) of this section, the water system shall conduct a round of monitoring for lead and copper at the tap demonstrating that it meets the criteria of subsection (G)(2) of this section no later than September 30, 2000. Thereafter, the waiver shall remain in effect as long as the water system meets the continued eligibility criteria of subsection (G)(5) of this section. The first round of tap water monitoring conducted pursuant to subsection (G)(4) of this section shall be completed no later than nine years after the round of monitoring conducted pursuant to subsection (G)(2) of this section.

#### **§ 705 DESCRIPTION OF CORROSION CONTROL TREATMENT REQUIREMENTS**

Each CWS or NTNCWS shall complete the corrosion control treatment requirements described below which are applicable to such CWS or NTNCWS under § 706.

- A. CWS or NTNCWS recommendation regarding corrosion control treatment.
  1. Based upon the results of lead and copper tap sampling and water quality parameter sampling, small and medium-size CWS or NTNCWS exceeding the lead or copper action level shall recommend installation of one or more of the corrosion control treatments listed in subsection (C)(1) of this section which the CWS or NTNCWS believes constitutes optimal corrosion control for that CWS or NTNCWS.
  2. The Director may require the CWS or NTNCWS to conduct additional water quality parameter sampling in accordance with § 707(B) to assist the Director in reviewing the CWS's or NTNCWS's recommendation.
- B. Director decision to require studies of corrosion control treatment (applicable to small and medium-size CWSs or NTNCWSs).
  1. The Director may require any small and medium-size CWS or NTNCWS that exceeds the lead or copper action level to perform corrosion control studies under subsection (C) of this section to identify optimal corrosion control treatment for the CWS or NTNCWS.
- C. Performance of corrosion control studies.
  1. Any CWS or NTNCWS performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that CWS or NTNCWS:
    - a. Alkalinity and pH adjustment;
    - b. Calcium hardness adjustment; and
    - c. The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.
  2. The CWS or NTNCWS shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other CWSs or NTNCWSs of similar size, water chemistry and distribution system configuration.
  3. The CWS or NTNCWS shall measure the following water quality parameters in any tests conducted under this subsection before and after evaluating the corrosion control treatments listed above:
    - a. Lead;
    - b. Copper;
    - c. pH;
    - d. Alkalinity;
    - e. Calcium;
    - f. Conductivity;
    - g. Orthophosphate (when an inhibitor containing a phosphate compound is used);
    - h. Silicate (when an inhibitor containing a silicate compound is used);
    - i. Water temperature.

4. The CWS or NTNCWS shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:
    - a. Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another CWS or NTNCWS with comparable water quality characteristics; and/or
    - b. Data and documentation demonstrating that the CWS or NTNCWS has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.
  5. The CWS or NTNCWS shall evaluate the effect of the chemicals used for corrosion control treatment on other water quality treatment processes.
  6. On the basis of an analysis of the data generated during each evaluation, the CWS or NTNCWS shall recommend to the Director in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that CWS or NTNCWS. The CWS or NTNCWS shall provide a rationale for its recommendation along with all supporting documentation specified in subsections (C) (1) through (5) of this section.
- D. Director's designation of optimal corrosion control treatment.
1. Based upon consideration of available information including, where applicable, studies performed under subsection (C) of this section and a CWS's or NTNCWS's recommended treatment alternative, the Director shall either approve the corrosion control treatment option recommended by the CWS or NTNCWS or designate alternative corrosion control treatment(s) from among those listed in subsection (C)(1) of this section. When designating optimal treatment, the Director shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water quality treatment processes.
  2. The Director shall notify the CWS or NTNCWS of the decision on optimal corrosion control treatment in writing and explain the basis for this determination. If the Director requests additional information to aid the review, the CWS or NTNCWS shall provide the information.
- E. Installation of optimal corrosion control. Each CWS or NTNCWS shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the Director under subsection (D) of this section.
- F. Director's review of treatment and specification of optimal water quality control parameters. The Director shall evaluate the results of all lead and copper tap samples and water quality parameter samples submitted by the CWS or NTNCWS and determine whether the CWS or NTNCWS has properly installed and operated the optimal corrosion control treatment designated by the Director in subsection (D) of this section. Upon reviewing the results of tap water and water quality parameter sampling by the CWS or NTNCWS, both before and after the CWS or NTNCWS installs optimal corrosion control treatment, the Director shall designate:
1. A minimum value or a range of values for pH measured at each entry point to the distribution system;
  2. A minimum pH value, measured in all tap samples. Such value shall be equal to or greater than 7.0, unless the Director determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the CWS or NTNCWS to optimize corrosion control;
  3. If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the Director determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system;
  4. If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;
  5. If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples.

The values for the applicable water quality control parameters listed above shall be those that the Director determines to reflect optimal corrosion control treatment for the CWS or NTNCWS. The Director may designate values for additional water quality control parameters to reflect

optimal corrosion control for the CWS or NTNCWS. The Director shall notify the CWS or NTNCWS in writing of the determinations and explain the basis for the decisions.

G. Continued Operation and Sampling. All CWSs or NTNCWSs optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameters at or above minimum values or within ranges designated by the Director under subsection (F) of this section, in accordance with this subsection for all samples collected under § 707(D)-(F). Compliance with the requirements of this subsection shall be determined every six months, as specified under § 707(D). A water system is out of compliance with the requirements of this subsection for a six-month period if it has excursions for any NNEPA-specified parameter on more than nine days during the period. An excursion occurs whenever the daily value for one or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the Director. Daily values are calculated as follows. The Director will have discretion to delete results of obvious sampling errors from this calculation.

1. On days when more than one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the average of all results collected during the day regardless of whether they are collected through continuous monitoring, grab sampling, or a combination of both. If EPA has approved an alternative formula under 40 CFR §142.16 in the state/tribe's application for a program revision submitted pursuant to 40 CFR §142.12, the state/tribe's formula shall be used to aggregate multiple measurements taken at a sampling point for the water quality parameter in lieu of the formula in this subsection.
2. On days when only one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the result of that measurement.
3. On days when no measurement is collected for the water quality parameter at the sampling location, the daily value shall be the daily value calculated on the most recent day on which the water quality parameter was measured at the sample site.

H. Modification of the Director's treatment decision.

Upon the Director's initiative or in response to a request by a CWS or NTNCWS or other interested party, the Director may modify a determination of the optimal corrosion control treatment under subsection (D) of this section or optimal water quality control parameters under subsection (F) of this section.

A request for modification by a CWS or NTNCWS or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation.

The Director may modify a determination where the Director concludes that such change is necessary to ensure that the CWS or NTNCWS continues to optimize corrosion control treatment.

A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the Director's decision, and provide an implementation schedule for completing the treatment modifications.

I. Treatment decisions by EPA in lieu of the Director.

Pursuant to the procedures in 40 CFR § 142.19, the EPA Regional Administrator may review treatment determinations made by the Director under subsections (D), (F), or (H) of this section and issue federal treatment determinations consistent with the requirements of those subsections where the Regional Administrator finds that:

1. The Director has failed to issue a treatment determination by the applicable deadlines contained in § 706;
2. The Director has abused his/her discretion in a substantial number of cases or in cases affecting a substantial population; or
3. The technical aspects of the Director's determination would be indefensible in an expected Federal enforcement action taken against a CWS or NTNCWS.

**§ 706 APPLICABILITY OF CORROSION CONTROL TREATMENT STEPS TO SMALL, MEDIUM-SIZE AND LARGE PUBLIC WATER SYSTEM**

A. Public water system, CWSs and NTNCWSs, shall complete the applicable corrosion control treatment requirements described in § 705 by the deadlines established in this section.

1. A large CWS or NTNCWS (serving >50,000 persons) shall complete the corrosion control treatment steps specified in subsection (D) of this section, unless it is deemed to have optimized corrosion control under subsection (B) (2) or (B) (3) of this section.
  2. A small CWS or NTNCWS (serving ≤3,300 persons) and medium-size CWS or NTNCWS (serving >3,300 and ≤50,000 persons) shall complete the corrosion control treatment steps specified in subsection (E) of this section, unless it is deemed to have optimized corrosion control under subsection (B) (1), (B) (2), or (B) (3) of this section.
- B. Any CWS or NTNCWS deemed to have optimized corrosion control under this section, and which has treatment in place, shall continue to operate and maintain optimal corrosion control treatment and meet any requirements that the Director determines appropriate to ensure optimal corrosion control treatment is maintained.

A CWS or NTNCWS is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in this section if the CWS or NTNCWS satisfies one of the following criteria:

1. A small or medium-size CWS or NTNCWS is deemed to have optimized corrosion control if the CWS or NTNCWS meets the lead and copper action levels during each of two consecutive six-month sampling periods conducted in accordance with § 704.
2. Any CWS or NTNCWS may be deemed, by the Director, to have optimized corrosion control treatment if the CWS or NTNCWS demonstrates to the satisfaction of the Director that it has conducted activities equivalent to the corrosion control steps applicable to such CWS or NTNCWS under this section.

If the Director makes this determination, a written notice explaining the basis for the decision will be provided and shall specify the water quality control parameters representing optimal corrosion control in accordance with § 705(F).

CWS or NTNCWS deemed to have optimized corrosion control under this subsection shall operate in compliance with the NNEPA-designated optimal water quality control parameters in accordance with § 705(G) and continue to conduct lead and copper tap and water quality parameter sampling in accordance with §§704(D) (4) and 707(D), respectively.

A CWS or NTNCWS shall provide the Director with the following information in order to support a determination under this subsection:

- a. The results of all test samples collected for each of the water quality parameters in § 705(C) (3);
  - b. A report explaining the test methods used by the CWS or NTNCWS to evaluate the corrosion control treatments listed in § 705(C) (1), the results of all tests conducted, and the basis for the CWS or NTNCWS's selection of optimal corrosion control treatment;
  - c. A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps; and
  - d. The results of tap water samples collected in accordance with § 704 at least once every six months for one year after corrosion control has been installed.
3. Any CWS or NTNCWS is deemed to have optimized corrosion control if it submits results of tap water sampling conducted in accordance with § 704 and source water sampling conducted in accordance with § 708 that demonstrates for two consecutive six-month sampling periods that the difference between the 90th percentile tap water lead level computed under § 703(A) (3), and the highest source water lead concentration, is less than the Practical Quantitation Level (PQL) for lead specified in Appendix C 701-C (A) (1) (b).
    - a. Those CWS or NTNCWS whose highest source water lead level is below the Method Detection Limit may also be deemed to have optimized corrosion control under this subsection if the 90th percentile tap water lead level is less than or equal to the PQL for lead for two consecutive 6-month monitoring periods.
    - b. Any CWS or NTNCWS deemed to have optimized corrosion control in accordance with this subsection shall continue monitoring for lead and copper at the tap no less frequently than once every three calendar years using the reduced number of sites specified in § 704(C) and collecting the samples at times and locations specified in § 704 (D) (5) (d).

Any such CWS or NTNCWS that has not conducted a round of monitoring pursuant to § 704(D) shall complete a round of monitoring pursuant to §710(D) since September 30,

1997, shall complete a round of monitoring pursuant to this section no later than September 30, 2000.

- c. Any CWS or NTNCWS deemed to have optimized corrosion control pursuant to this subsection shall notify the Director in writing pursuant to § 712(A)(3) of any change in treatment or the addition of a new source. The Director may require any such CWS or NTNCWS to conduct additional monitoring or to take other action the Director deems appropriate to ensure that such CWS or NTNCWS maintain minimal levels of corrosion in the distribution system.
- d. Upon promulgation of these regulations, a CWS or NTNCWS is not deemed to have optimized corrosion control under this subsection, and shall implement corrosion control treatment pursuant to subsection (B)(3)(e) of this section unless it meets the copper action level.
- e. Any CWS or NTNCWS triggered into corrosion control because it is no longer deemed to have optimized corrosion control under this subsection shall implement corrosion control treatment in accordance with the deadlines in subsection (E) of this section.

Any such large CWS or NTNCWS shall adhere to the schedule specified in that subsection for medium-size CWS or NTNCWS, with the time periods for completing each step being triggered by the date the water system is no longer deemed to have optimized corrosion control under this subsection.

- C. Any small or medium-size CWS or NTNCWS that is required to complete the corrosion control steps due to its exceedance of the lead or copper action level may cease completing the treatment steps whenever the CWS or NTNCWS meets both action levels during each of the two consecutive sampling periods conducted pursuant to § 704 and submits the results to the Director.

If any such CWS or NTNCWS, thereafter, exceeds the lead or copper action level during any sampling period, the CWS or NTNCWS shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety.

The Director may require a CWS or NTNCWS to repeat treatment steps previously completed by the CWS or NTNCWS where the Director determines that this is necessary to implement properly the treatment requirements of this section.

The Director shall notify the CWS or NTNCWS in writing of such a determination and explain the basis for the decision.

The requirement for any small or medium-size CWS or NTNCWS to implement corrosion control treatment steps in accordance with subsection (E) of this section (including CWS or NTNCWSs deemed to have optimized corrosion control under subsection (B)(1) of this section) is triggered whenever any small- or medium-size CWS or NTNCWS exceeds the lead or copper action level.

- D. Treatment steps and deadlines for large CWSs or NTNCWSs. Except as provided in subsection (B)(2) and (3) of this section, large CWSs or NTNCWSs shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 705, 704, and 707) by the indicated dates.

1. Step 1: The CWS or NTNCWS shall conduct initial sampling §§ 704(D)(1) and 707(B) during two consecutive six-month sampling periods by January 1, 1993.
2. Step 2: The CWS or NTNCWS shall complete corrosion control studies (§ 705(C)) by July 1, 1994.
3. Step 3: The Director shall designate optimal corrosion control treatment (§ 705(D)) by January 1, 1995.
4. Step 4: The CWS or NTNCWS shall install optimal corrosion control treatment (§ 705(E)) by January 1, 1997.
5. Step 5: The CWS or NTNCWS shall complete follow-up sampling (§§ 704(D)(3) and 707(C)) by January 1, 1998.
6. Step 6: The Director shall review installation of treatment and designate optimal water quality control parameters (§ 705(F)) by July 1, 1998.
7. Step 7: The CWS or NTNCWS shall operate in compliance with the Director-specified optimal water quality control parameters (§ 705(G)) and continue to conduct tap sampling (§§ 704(D)(4) and 707(D)).

- E. Treatment Steps and deadlines for small and medium-size CWSs or NTNCWSs. Except as provided in subsection (B) of this section, small and medium-size CWSs or NTNCWSs shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 705, 704, and 707) by the indicated time periods.
1. Step 1: The CWS or NTNCWS shall conduct initial tap sampling (§§704(D)(1) and 707(B)) until the CWS or NTNCWS either exceeds the lead or copper action level or becomes eligible for reduced sampling under §704 (D)(5). A CWS or NTNCWS exceeding the lead or copper action level shall recommend optimal corrosion control treatment (§705(A)) within six months after it exceeds one of the action levels.
  2. Step 2: Within 12 months after a CWS or NTNCWS exceeds the lead or copper action level, the Director may require the CWS or NTNCWS to perform corrosion control studies (§ 705(B)). If the Director does not require the CWS or NTNCWS to perform such studies, the Director shall specify optimal corrosion control treatment (§ 705(D)) within the following timeframes:
    - a. for medium-size CWSs or NTNCWSs, within 18 months after such CWS or NTNCWS exceeds the lead or copper action level.
    - b. for small CWS or NTNCWSs, within 24 months after such CWS or NTNCWS exceeds the lead or copper action level.
  3. Step 3: If the Director requires a CWS or NTNCWS to perform corrosion control studies under Step 2, the CWS or NTNCWS shall complete the studies (§ 705(C)) within 18 months after the Director requires that such studies be conducted.
  4. Step 4: If the CWS or NTNCWS has performed corrosion control studies under Step 2, the Director shall designate optimal corrosion control treatment (§ 705(D)) within 6 months after completion of Step 3.
  5. Step 5: The CWS or NTNCWS shall install optimal corrosion control treatment (§ 705(E)) within 24 months after the Director designates such treatment.
  6. Step 6: The CWS or NTNCWS shall complete follow-up sampling (§§ 704(D)(3) and 707(C)) within 36 months after the Director designates optimal corrosion control treatment.
  7. Step 7: The Director shall review the CWS's or NTNCWS's installation of treatment and designate optimal water quality control parameters (§ 705(F)) within 6 months after completion of Step 6.
  8. Step 8: The CWS or NTNCWS shall operate in compliance with the Director-designated optimal water quality control parameters (§ 705(G)) and continue to conduct tap sampling (§§ 704 (D)(4) and 707(D)).

#### **§ 707 SAMPLING REQUIREMENTS FOR WATER QUALITY PARAMETERS**

All large CWSs or NTNCWSs and all small and medium-size CWSs or NTNCWSs that exceed the lead or copper action level shall sample water quality parameters in addition to lead and copper in accordance with this section. The requirements of this section are summarized in the table at the end of this section.

##### **A. General Requirements:**

1. Sample collection methods.
  - a. Tap samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the CWS or NTNCWS, and seasonal variability. Tap sampling under this section is not required to be conducted at taps targeted for lead and copper sampling under § 704(A). [Note: CWSs or NTNCWSs may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under § 404.]
  - b. Samples collected at the entry point(s) to the distribution CWS or NTNCWS shall be from locations representative of each source after treatment. If a CWS or NTNCWS draws water from more than one source and the sources are combined before distribution, the CWS or NTNCWS must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).
2. Number of samples.

- a. Except as provided in subsection (C)(3) of this section, CWSs or NTNCWSs shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each sampling period specified under subsections (B) of this section from the following number of sites.

**TABLE 700.2 WATER QUALITY PARAMETER SAMPLING SITE**

System size (# of people served)	# of sites for water quality parameters
>100,000	25
10,001 to 100,000	10
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

- b. CWSs or NTNCWSs shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each sampling period specified in subsection (B) of this section. During each sampling period specified in subsections (C) through (E) of this section, CWSs or NTNCWSs shall collect one sample for each applicable water quality parameter at each entry point to the distribution system.

B. Initial sampling. All large CWSs or NTNCWSs shall measure the applicable water quality parameters as specified below at taps and at each entry point to the distribution system during each six-month sampling period specified in § 704(D)(2). All small and medium-size CWSs or NTNCWSs shall measure the applicable water quality parameters at the locations specified below during each six-month sampling period specified in §704(D)(2) during which the CWS or NTNCWS exceeds the lead or copper action level.

1. At taps:

- a. pH;
- b. Alkalinity;
- c. Orthophosphate, when an inhibitor containing a phosphate compound is used;
- d. Silica, when an inhibitor containing a silicate compound is used;
- e. Calcium;
- f. Conductivity; and
- g. Water temperature.

2. At each entry point to the distribution system: all of the applicable parameters listed in subsection (B)(1) of this section.

C. Sampling after installation of corrosion control. Any large CWS or NTNCWS which installs optimal corrosion control treatment pursuant to § 706(D)(4) shall measure the water quality parameters at the locations and frequencies specified below during each six-month sampling period specified in § 704(D)(3)(a). Any small or medium-size CWS or NTNCWS which installs optimal corrosion control treatment shall conduct such sampling during each six-month sampling period specified in § 704 (D)(3)(b) in which the CWS or NTNCWS exceeds the lead or copper action level.

1. At taps, two samples for:

- a. pH;
- b. Alkalinity;
- c. Orthophosphate, when an inhibitor containing a phosphate compound is used;
- d. Silica, when an inhibitor containing a silicate compound is used; and
- e. Calcium, when calcium carbonate stabilization is used as part of corrosion control.

2. Except as provided in subsection (C)(3) of this section, at each entry point to the distribution system, at least one sample no less frequently than every two weeks (biweekly) for:

- a. pH;
- b. When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

c. When a corrosion inhibitor is used as part of the optimal corrosion control, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica (whichever is applicable).

3. Any ground water system can limit entry point sampling described in subsection (C) (2) of this section to those entry points that are representative of water quality and treatment conditions throughout the water system. If water from untreated ground water sources mixes with water from treated ground water sources, the water system must monitor for water quality parameters both at representative entry points receiving treatment and representative entry points receiving no treatment. Prior to the start of any monitoring under this subsection, the water system shall provide to the Director written information identifying the selected entry points and documentation, including information on seasonal variability, sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the water system.

D. Sampling after the Director specifies water quality parameter values for optimal corrosion control. After the Director specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment under §705(F), all large CWS or NTNCWSs shall measure the applicable water quality parameters in accordance with subsection (C) of this section and determine compliance with the requirements of § 705(G) every six months with the first six-month period to begin on the date the Director specifies the optimal values under § §705(F). Any small or medium-size CWS or NTNCWS shall conduct such sampling during each six-month period specified in this subsection in which the CWS or NTNCWS exceeds the lead or copper action level. For any such small and medium-size CWSs or NTNCWSs that is subject to a reduced monitoring frequency pursuant to § 704 (D) (5) at the time of the action level exceedance, the end of the applicable six-month period under this subsection shall coincide with the end of the applicable monitoring period under § 704 (D) (5). Compliance with Director-designated optimal water quality parameter values shall be determined as specified under § 705(G).

E. Reduced Sampling.

1. Any CWS or NTNCWS that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month sampling periods under subsection (D) of this section shall continue sampling at the entry point(s) to the distribution system as specified in subsection (C) (2) of this section. Such CWS or NTNCWS may collect two tap samples for applicable water quality parameters from the following reduced number of sites during each six-month sampling period.

**TABLE 700.3 REDUCED SAMPLING**

System size (# of people served)	Reduced # of sites for water quality parameters
>100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

2. a. Any CWS or NTNCWS that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Director under § 705(F) during three consecutive years of sampling may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in subsection (E) (1) of this section from every six months to annually. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Director under §§705 (F) during three consecutive years of annual sampling under this subsection may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in subsection (E) (1) of this section from annually to every three years.

b. A CWS or NTNCWS may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in subsection (E) (1) of this section to every three years if it demonstrates during two consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the PQL for lead specified in Appendix C -Lead/Copper, that its tap water copper level

at the 90th percentile is less than or equal to 0.65 mg/L for copper in §703(A) (2), and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Director under § 705(F).

3. A CWS or NTNCWS that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.
4. Any CWS or NTNCWS subject to reduced sampling frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the Director under § 705(F) for more than nine days in any six-month period specified in § 705(G) shall resume distribution system tap water sampling in accordance with the number and frequency requirements in subsection (D) of this section. Such a water system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in subsection (E)(1) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of that subsection and/or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either subsection (E) (2) (a) or (E) (2) (b) of this section.

F. Additional sampling by CWSs or NTNCWSs. The results of any sampling conducted in addition to the minimum requirements of this section shall be considered by the public water system and the Director in making any determinations (i.e., determining concentrations of water quality parameters) under this section or § 705.

**TABLE 700.4 SUMMARY SAMPLING REQUIREMENTS FOR WATER QUALITY PARAMETERS<sup>1</sup>**

SAMPLING PERIOD	PARAMETERS <sup>2</sup>	LOCATION	FREQUENCY
Initial Sampling	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium, conductivity, temperature	Taps and at entry point(s) to distribution system.	Every 6 months
After installation of Corrosion Control	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium <sup>4</sup>	Taps	Every 6 months
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual <sup>5</sup> .	Entry point(s) to distribution system.	No less frequently than every two weeks.
After Director Specifies Parameter Values for Optimal Corrosion Control	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium <sup>4</sup>	Taps	Every 6 months
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual <sup>5</sup> .	Entry point(s) to distribution system <sup>5</sup> .	No less frequently than every two weeks.
Reduced Sampling	pH, alkalinity, orthophosphate or silica <sup>3</sup> , calcium <sup>4</sup>	Taps	Every 6 months annually <sup>7</sup> or every 3 years <sup>8</sup> reduced number of sites.
	pH, alkalinity dosage rate and concentration (if alkalinity adjustment as part of corrosion control), inhibitor dosage rate and inhibitor residual <sup>5</sup> .	Entry point(s) to distribution system <sup>5</sup> .	No less frequently than every two weeks.

<sup>1</sup> Table is for illustrative purposes; consult the text of this section for precise regulatory requirements.

<sup>2</sup> Small and medium-size CWS or NTNCWSs have to sample for water quality parameters only during sampling periods in which the CWS or NTNCWS exceeds the lead or copper action level.

<sup>3</sup> Orthophosphate must be measured only when an inhibitor containing a phosphate compound is used. Silica must be measured only when an inhibitor containing a silicate compound is used.

<sup>4</sup> Calcium must be measured only when calcium carbonate stabilization is used as part of corrosion control.

<sup>5</sup> Inhibitor dosage rates and inhibitor residual concentrations (orthophosphate or silica) must be measured only when an inhibitor is used.

<sup>6</sup> Ground water systems may limit monitoring to representative locations throughout the water system.

<sup>7</sup> Water systems may reduce frequency of monitoring for water quality parameters at the tap from every six months to annually if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of monitoring.

<sup>8</sup> Water systems may further reduce the frequency of monitoring for water quality parameters at the tap from annually to once every 3 years if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of annual monitoring. Water systems may accelerate to triennial monitoring for water quality parameters at the tap if they have maintained 90th percentile lead levels less than or equal to 0.005 mg/L, 90th percentile copper levels less than or equal to 0.65 mg/L, and the range of water quality parameters designated by the Director under § 705(F) as representing optimal corrosion control during two consecutive six-month monitoring periods.

## **§ 708                    SAMPLING REQUIREMENTS FOR LEAD AND COPPER IN SOURCE WATER**

A.     Sample location, collection methods, and number of samples.

1.     A CWS or NTNCWS that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with § 704 shall collect lead and copper source water samples in accordance with the following requirements regarding sample location, number of samples, and collection methods:

a.     Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The water system shall take one sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

b.     Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point). The water system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

NOTE: For the purposes of this subsection, surface water systems include water systems with a combination of surface and ground sources.

c.     If a water system draws water from more than one source and the sources are combined before distribution, the water system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

d.     The Director may reduce the total number of samples which must be analyzed by allowing the use of compositing. Compositing of samples must be done by certified laboratory personnel. Composite samples from a maximum of five samples are allowed, provided that if the lead concentration in the composite sample is greater than or equal to 0.001 mg/L or the copper concentration is greater than or equal to 0.160 mg/L, then either:

i.     A follow-up sample shall be taken and analyzed within 14 days at each sampling point included in the composite; or

ii.    If duplicates of or sufficient quantities from the original samples from each sampling point used in the composite are available, the water system may use these instead of resampling.

2.     Where the results of sampling indicate an exceedance of maximum permissible source water levels established under § 709 (B) (4), the Director may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point. If a Director-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the Director-specified maximum permissible levels. Any sample value below the detection limit shall be considered to be zero. Any value above the detection limit but below the PQL shall either be considered as the measured value or be considered as one-half the PQL.

- B. Sampling frequency after CWS or NTNCWS exceeds tap water action level. Any CWS or NTNCWS which exceeds the lead or copper action level at the tap shall collect one source water sample from each entry point to the distribution system within six months after the exceedance.
- C. Sampling frequency after installation of source water treatment. Any CWS or NTNCWS which installs source water treatment pursuant to § 709(A) (3) shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month sampling periods by the deadline specified in §709(A) (4).
- D. Sampling frequency after the Director specifies maximum permissible source water levels or determines that source water treatment is not needed.
  - 1. A CWS or NTNCWS shall sample at the frequency specified below in cases where the Director specifies maximum permissible source water levels under §709(B) (4) or determines that the public water system is not required to install source water treatment under § 709(B) (2).
    - a. A CWS or NTNCWS using only groundwater shall collect samples once during the three-year compliance period (as that term is defined in § 104) in effect when the applicable Director determination under subsection (D) (1) of this section is made. Such water system shall collect samples once during each subsequent compliance period.
    - b. A CWS or NTNCWS using surface water (or a combination of surface and groundwater) shall collect samples once during each year, the first annual sampling period to begin on the date on which the applicable Director determination is made under subsection (D) (1) of this section.
  - 2. A CWS or NTNCWS is not required to conduct source water sampling for lead and/or copper if the water system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the water system under subsection (D) (1) (a) or (b) of this section.
- E. Reduced sampling frequency.
  - 1. A CWS or NTNCWS using only ground water may reduce the monitoring frequency for lead and copper in source water to once during each nine-year compliance cycle if the water system meets one of the following criteria:
    - a. The water system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Director in §709(B) (4) during at least three consecutive compliance periods under subsection (D) (1) of this section; or
    - b. The Director has determined that source water treatment is not needed and the water system demonstrates that, during at least three consecutive compliance periods in which sampling was conducted under subsection (D) (1) of this section, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.
  - 2. A CWS or NTNCWS using surface water (or a combination of surface water and ground water) may reduce the monitoring frequency in subsection (D) (1) of this section to once during each nine-year compliance cycle if the water system meets one of the following criteria:
    - a. The CWS or NTNCWS demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Director in §709(B) (4) for at least three consecutive years; or
    - b. The Director has determined that source water treatment is not needed and the CWS or NTNCWS demonstrates that, during at least three consecutive years, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.
  - 3. A CWS or NTNCWS that uses a new source of water is not eligible for reduced sampling for lead and/or copper until concentrations in samples collected from the new source during three consecutive sampling periods are below the maximum permissible lead and copper concentrations specified by the Director in §709(A) (5).

**§ 709 SOURCE WATER TREATMENT REQUIREMENTS**

CWSs or NTNCWSs shall complete the applicable source water sampling and treatment requirements (described in the referenced portions of subsection (B) of this section, and in §§ 704 and 708) by the following deadlines:

A. Deadlines for Completing Source Water Treatment Steps:

1. Step 1: A CWS or NTNCWS exceeding the lead or copper action level shall complete lead or copper source water sampling (§708(B)) and make a treatment recommendation to the Director (§709(B)(1)) within 6 months after exceeding the lead or copper action level.
2. Step 2: The Director shall make a determination regarding source water treatment (§ 709 (B)(2)) within 6 months after submission of sampling results under Step 1.
3. Step 3: If the Director requires installation of source water treatment, the CWS or NTNCWS shall install the treatment (§709 (B)(3)) within 24 months after completion of Step 2.
4. Step 4: The CWS or NTNCWS shall complete follow-up tap water sampling (§704(D)(3)) and source water sampling (§708(C)) within 36 months after completion of Step 2.
5. Step 5: The Director shall review the CWS's or NTNCWS's installation and operation of source water treatment and specify maximum permissible source water levels (§709(B)(4)) within 6 months after completion of Step 4.
6. Step 6: The public water system shall operate in compliance with the maximum permissible lead and copper source water levels (§709 (B)(4)) and continue source water sampling (§ 708 (D)).

B. Description of Source Water Treatment Requirements:

1. CWS or NTNCWS treatment recommendation. Any CWS or NTNCWS which exceeds the lead or copper action level shall recommend in writing to the Director the installation and operation of one of the source water treatments listed in subsection (B)(2) of this section. A CWS or NTNCWS may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.
2. Director determination regarding source water treatment. The Director shall complete an evaluation of the results of all source water samples submitted by the CWS or NTNCWS to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the Director determines that treatment is needed, the Director shall either require installation and operation of the source water treatment recommended by the CWS or NTNCWS (if any) or require the installation and operation of another source water treatment from among the following: ion exchange, reverse osmosis, lime softening, or coagulation/filtration.

If the Director requests additional information to aid in his/her review, the CWS or NTNCWS shall provide the information by the date specified by the Director in his/her request. The Director shall notify the system in writing of the determination and set forth the basis for his/her decision.

3. Installation of source water treatment. Each CWS or NTNCWS shall properly install and operate the source water treatment designated by the Director under subsection (B)(2) of this section.
4. Director review of source water treatment and specification of maximum permissible source water levels. The Director shall review the source water samples taken by the CWS or NTNCWS both before and after the system installs source water treatment, and determine whether the CWS or NTNCWS has properly installed and operated the source water treatment designated by the Director. Based upon this review, the Director shall designate the maximum permissible lead and copper concentrations for finished water entering the distribution system. Such levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The Director shall notify the CWS or NTNCWS in writing and explain the basis for the decision.
5. Continued operation and maintenance. Each CWS or NTNCWS shall maintain lead and copper levels below the maximum permissible concentrations designated by the Director at each sampling point sampled in accordance with § 708. The CWS or NTNCWS is out of compliance with this subsection if the level of lead or copper at any sampling point is greater than the maximum permissible concentration designated by the Director.
6. Modification of the Director treatment decisions. Upon the Director's own initiative or in response to a request by a CWS or NTNCWS or other interested party, the Director may modify the determination of the source water treatment under subsection (B)(2) of this section, or maximum permissible lead and copper concentrations for finished water entering the distribution system under subsection (B)(4) of this section. A request for modification by a CWS or NTNCWS or other interested party shall be in writing, explain

why the modification is appropriate, and provide supporting documentation. The Director may modify a determination where the Director concludes that such change is necessary to ensure that the CWS or NTNCWS continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the Director's decision, and provide an implementation schedule for completing the treatment modifications.

7. Treatment decisions by EPA in lieu of the Director. Pursuant to the procedures in 40 CFR § 142.19, the EPA Regional Administrator may review treatment determinations made by the Director under subsections (B)(2), (B)(4), or (B)(6) of this section and issue Federal treatment determinations consistent with the requirements of those subsections where the Administrator finds that:
  - a. The Director has failed to issue a treatment determination by the applicable deadlines contained in § 709(A);
  - b. The Director has abused his/her discretion in a substantial number of cases or in cases affecting a substantial population; or
  - c. The technical aspects of the Director's determination would be indefensible in an expected Federal enforcement action taken against a system.

#### § 710 LEAD SERVICE LINE REPLACEMENT REQUIREMENTS

- A. CWS or NTNCWSs that fail to meet the lead action level in tap samples taken pursuant to § 704 (D)(3), after installing corrosion control and/or source water treatment (whichever sampling occurs later), shall replace lead service lines in accordance with requirements of this section. If a CWS or NTNCWS is in violation of § 706 or § 709 for failure to install source water or corrosion control treatment, the Director may require the public water system to commence lead service line replacement under this section after the date by which the CWS or NTNCWS was required to conduct sampling under § 704 (D)(3) has passed.
- B. A CWS or NTNCWS shall replace annually at least 7 % of the initial number of lead service lines in the distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The CWS or NTNCWS shall identify the initial number of lead service lines in its distribution system, including an identification of the portion(s) owned by the water system, based on a materials evaluation, including the evaluation required under § 704(A) and relevant legal authorities (e.g., contracts, local ordinances) regarding the portion owned by the water system. The first year of lead service line replacement shall begin on the date the action level was exceeded in tap sampling referenced in subsection (A) of this section.
- C. A CWS or NTNCWS is not required to replace an individual lead service line if the lead concentration in all service line samples from that line, taken pursuant to § 704(B)(3), is less than or equal to 0.015 mg/L.
- D. A CWS or NTNCWS shall replace that portion of the lead service line that it owns. In cases where the water system does not own the entire lead service line, the water system shall notify the owner of the line, or the owner's authorized agent, that the water system will replace the portion of the service line that it owns and shall offer to replace the owner's portion of the line. A water system is not required to bear the cost of replacing the privately-owned portion of the line, nor is it required to replace the privately-owned portion where the owner chooses not to pay the cost of replacing the privately-owned portion of the line, or where replacing the privately-owned portion would be precluded by tribal, local or common law. A water system that does not replace the entire length of the service line also shall complete the following tasks.
  1. At least 45 days prior to commencing with the partial replacement of a lead service line, the water system shall provide notice to the resident(s) of all buildings served by the line explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead. The Director may allow the water system to provide notice under the previous sentence less than 45 days prior to commencing partial lead service line replacement where such replacement is in conjunction with emergency repairs. In addition, the water system shall inform the resident(s) served by the line that the water system will, at the water system's expense, collect a sample from each partially-replaced lead service line that is representative of the water in the service line for analysis of lead content, as prescribed under § 704(B)(3), within 72 hours after the completion of the partial replacement of the service line. The water system shall collect the sample and report the results of the analysis to the owner and the resident(s) served by the line within three business days of receiving the results. Mailed notices post-marked within three business days of receiving the results shall be considered "on time."

2. The water system shall provide the information required by subsection (D)(1) of this section to the residents of individual dwellings by mail or by other methods approved by the Director. In instances where multi-family dwellings are served by the line, the water system shall have the option to post the information at a conspicuous location.
- E. The Director shall require a CWS or NTNCWS to replace lead service lines on a shorter schedule than that required by this section, taking into account the number of lead service lines in the CWS or NTNCWS, where such a shorter replacement schedule is feasible. The Director shall make this determination in writing and notify the CWS or NTNCWS of the findings within 6 months after the CWS or NTNCWS is triggered into lead service line replacement based on sampling referenced in subsection (A) of this section.
- F. Any CWS or NTNCWS may cease replacing lead service lines whenever first draw samples collected pursuant to § 704(B)(2) meet the lead action level during each of two consecutive sampling periods and the CWS or NTNCWS submits the results to the Director. If the first draw tap samples collected in any such public water system thereafter exceeds the lead action level, the public water system shall recommence replacing lead service lines, pursuant to subsection (B) in this section.
- G. To demonstrate compliance with subsections (A) through (D) of this section, a CWS or NTNCWS shall report to the Director the information specified in § 712(E).

#### § 711 PUBLIC EDUCATION AND SUPPLEMENTAL SAMPLING REQUIREMENTS

A. A CWS or NTNCWS that exceeds the lead action level based on tap water samples collected in accordance with § 704 shall deliver the public education materials contained in subsections (A) and (B) of this section in accordance with the requirements in subsection (C) of this section.

1. Community Water Systems: Content of written public education materials.  
A CWS shall include the following text in all of the printed materials it distributes through its lead public education program. Water systems may delete information pertaining to lead service lines, upon approval by the Director, if no lead service lines exist anywhere in the water system service area. Public education language at subsections (A)(1)(d)(ii)(5) and (A)(1)(d)(iv)(2) of this section may be modified regarding building permit record availability and consumer access to these records, if approved by the Director. Water systems may also continue to utilize pre-printed materials that meet the public education language requirements in § 711. Any additional information presented by a system shall be consistent with the information below and be in plain English, or plain English and plain Navajo that can be understood by lay people.
  - a. Introduction. EPA and [please insert name of water supplier] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law, we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your public water system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert public water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.
  - b. Health effects of lead. Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery, porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination--like dirt and dust--that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.
  - c. Lead in Drinking Water.
    - i. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are

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

- ii. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.
- iii. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

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

- i. Despite our best efforts mentioned earlier to control water corrosivity and to remove lead from the public water systems, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call [insert phone number of public water system].
- ii. If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:
  - 1. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15-30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than [insert a cost estimate based on flushing two times a day for 30 days] per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.
  - 2. Try not to cook with or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.
  - 3. Remove the loose lead solder and debris from plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.
  - 4. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber

who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the NNEPA's PWSSP about the violation.

5. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the city's record of building permits which should be maintained in the files of the [the name of the department that issues building permits]. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the line. If the line is only partially controlled by the [insert name of the public water system that controls the line], we are required to provide the owner of the privately-owned portion of the line with information on how to replace the privately-owned portion of the service line, and offer to replace that portion of the line at the owner's expense. If we replace only the portion of the line that we own, we also are required to notify you in advance and provide you with information on the steps you can take to minimize exposure to any temporary increase in lead levels that may result from the partial replacement, to take a follow-up sample at our expense from the line within 72 hours after the partial replacement, and to mail or otherwise provide you with the results of that sample within three business days of receiving the results. Acceptable replacement alternatives include copper, steel, iron, and plastic pipes.
  6. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.
- iii. The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:
1. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis or distillers can effectively remove lead from your drinking water. Some activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit.
  2. Purchase bottled water for drinking and cooking.
- iv. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. Government agencies that can be contacted include:
1. The NNEPA-PWSSP at (928) 871-7755 or (888)643-7692 can provide you with information about your community's public water system, and a list of local laboratories that have been certified by EPA for testing water quality;
  2. The Indian Health Service (928) 729-8400 or 729-8000 can provide you with information about the health effects of lead and how you can have your child's blood tested.

- v. The following is an approved laboratory in your area that you can call to have your water tested for lead--NTUA Laboratory at (928) 729-5721.

2. Non-transient non-community water systems.

A NTCNWS shall either include the text specified in subsection (A)(1) of this section or shall include the following text in all of the printed materials it distributes through its lead public education program. Water systems may delete information pertaining to lead service lines upon approval by the Director if no lead service lines exist anywhere in the water system service area. Any additional information presented by a water system shall be consistent with the information below and be in plain English, or plain English and plain Navajo that can be understood by lay people.

- a. Introduction. EPA and [insert name of water supplier] are concerned about lead in your drinking water. Some drinking water samples taken from this facility have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your water system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.
- b. Health effects of lead. Lead is found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.
- c. Lead in drinking water.
  - i. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.
  - ii. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect houses and buildings to water mains (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.
  - iii. When water stands in lead pipes or plumbing water systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.
- d. Steps you can take to reduce exposure to lead in drinking water.
  - i. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in plumbing the more lead it may contain. Flushing the tap means running the cold water faucet for about 15-30 seconds. Although toilet flushing or showering flushes water through a portion of the plumbing water system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive

measure you can take to protect your health. It usually uses less than one gallon of water.

- ii. Do not cook with, or drink water from the hot water tap. Hot water can dissolve lead more quickly than cold water. If you need hot water, draw water from the cold tap and then heat it.
- iii. The steps described above will reduce the lead concentrations in your drinking water. However, if you are still concerned, you may wish to use bottled water for drinking and cooking.
- iv. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. NNEPA and local government agencies that can be contacted include:
  1. [insert the name or title of facility official if appropriate] at [insert phone number] can provide you with information about your facility's water supply; and
  2. [insert the name or title of the Director Department of Public Health] at [insert phone number] can provide you with information about the health effects of lead.

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

1. Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for [insert "free" or \$ per sample]. You can contact the [insert the name of the public water system for information on testing and on simple ways to reduce your exposure to lead in drinking water.
2. To have your water tested for lead, or to get more information about this public water concern, please call [the phone number of the public water system.

C. Delivery of a public education program.

1. In communities where a significant proportion of the population speaks Navajo, public education materials shall be communicated in Navajo, as well as English, whenever possible.
2. A CWS that exceeds the lead action level on the basis of tap water samples collected in accordance with § 704, and that is not already repeating public education tasks pursuant to subsection (C) (3), (C) (7), or (C) (8), of this section, shall, within 60 days:
  - a. Insert notices in each customer's water utility bill containing the information in subsection (A) (1) of this section, along with the following alert on the water bill itself in large print:

"SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION." A CWS having a billing cycle that does not include a billing within 60 days of exceeding the action level, or that cannot insert information in the water utility bill without making major changes to its billing water system, may use a separate mailing to deliver the information in subsection (A) (1) of this section as long as the information is delivered to each customer within 60 days of exceeding the action level. Such water systems shall also include the "alert" language specified in this subsection.
  - b. Submit the information in subsection (A) (1) of this section to the editorial departments of the major daily and weekly newspapers circulated throughout the community.
  - c. Deliver pamphlets and/or brochures that contain the public education materials in subsections (A) (1) (b) and (A) (1) (d) of this section to facilities and organizations, including the following:
    - i. Public schools and/or local school boards;
    - ii. Federal or tribal health department;

- iii. Women, Infants, and Children and/or Head Start Program(s) whenever available;
  - iv. Public and private hospitals and/or clinics;
  - v. Pediatricians;
  - vi. Family planning clinics; and
  - vii. Local welfare agencies.
- d. Submit the public service announcement to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the public water system.
3. A CWS shall repeat the tasks contained in subsections (C)(2)(a), (b) and (c) of this section every 12 months, and the tasks contained in subsections (C)(2)(d) of this section every 6 months for as long as the water system exceeds the lead action level.
4. Within 60 days after it exceeds the lead action level, (unless it already is repeating public education tasks pursuant to subsection (C)(5) of this section), a NTNCWS shall deliver the public education materials contained in subsections (A)(1), or the public education materials specified by subsection (A)(2) of this section as follows:
- a. Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the water system; and
  - b. Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the NTNCWS. The Director may allow the water system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.
5. A NTNCWS shall repeat the tasks contained in subsection (C)(4) of this section at least once during each calendar year in which the public water system exceeds the lead action level.
6. A public water system may discontinue delivery of public education materials if the water system has met the lead action level during the most recent six-month sampling period conducted pursuant to § 704. Such a water system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any sampling period.
7. A CWS may apply to the Director, in writing, (unless the Director has waived the requirement for prior Director approval) to use the text specified in subsection (A)(2) of this section in lieu of the text in subsection (A)(1) of this section and to perform the tasks listed in subsections (C)(4) and (C)(5) of this section in lieu of the tasks in subsections (C)(2) and (C)(3) of this section if:
- a. The water system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and
  - b. The water system provides water as part of the cost of services provided and does not separately charge for water consumption.
8. a. A CWS serving 3,300 or fewer people may omit the task contained in subsection (C)(2)(d) of this section. As long as it distributes notices containing the information contained in subsection (A)(1) of this section to every household served by the public water system, such water systems may further limit their public education programs as follows:
- i. Water systems serving 500 or fewer people may forego the task contained in subsection (C)(2)(b) of this section. Such a water system may limit the distribution of the public education materials required under subsection (C)(2)(c) of this section to facilities and organizations served by the water system that are most likely to be visited regularly by pregnant women and children, unless it is notified by the Director in writing that it must make a broader distribution.
  - ii. If approved by the Director in writing, a water system serving 501 to 3,300 people may omit the task in subsection (C)(2)(b) of this section and/or limit the distribution of the public education materials required under subsection (C)(2)(c) of this section to facilities and organizations served by the water system that are most likely to be visited regularly by pregnant women and children.

- b. A CWS serving 3,300 or fewer people that delivers public education in accordance with subsection (C)(8)(a) of this section shall repeat the required public education tasks at least once during each calendar year in which the water system exceeds the lead action level.
- D. Supplemental sampling and notification of results. A public water system that fails to meet the lead action level on the basis of tap samples collected in accordance with § 704 shall offer to sample the tap water of any customer who requests it. The public water system is not required to pay for collecting or analyzing the sample, nor is the public water system required to collect and analyze the sample itself.

## § 712 REPORTING REQUIREMENTS

All CWS or NTNCWS s shall report all of the following information to the Director in accordance with this section.

- A. Reporting requirements for tap water sampling for lead and copper and for water quality parameter sampling.
  - 1. Except as provided in subsection (A)(1)(h) of this section, a water system shall report the information specified below for all tap water samples specified in § 704 and for all water quality parameter samples specified in § 707 within the first 10 days following the end of each applicable monitoring period specified in §§ 704 and 707 (i.e., every six months, annually, every 3 years, or every 9 years):
    - a. The results of all tap samples for lead and copper including the location of each site and the criteria under § 704(A)(3), (4), (5), (6), and/or (7) under which the site was selected for the public water system's sampling pool;
    - b. Documentation for each tap water lead or copper sample for which the water system requests invalidation pursuant to § 704(F)(2);
    - c. [Reserved];
    - d. The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each sampling period (calculated in accordance with § 703(A)(3), unless the Director calculates the water system's 90th percentile lead and copper levels under subsection (H) of this section);
    - e. With the exception of initial tap sampling conducted pursuant to § 704(D)(2), the public water system shall designate any site which was not sampled during previous sampling periods, and include an explanation of why sampling sites have changed;
    - f. The results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under § 707(B) - (E);
    - g. The results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under § 707(B) - (E);
    - h. A water system shall report the results of all water quality parameter samples collected under § 707(C)-(F) during each six-month monitoring period specified in § 707(D) within the first 10 days following the end of the monitoring period unless the Director has specified a more frequent reporting requirement.
  - 2. For a NTNCWS, or a CWS meeting the criteria of § 711(C)(7)(a) and (b), that does not have enough taps that can provide first-draw samples, the water system must either:
    - a. Provide written documentation to the Director identifying standing times and locations for enough non-first-draw samples to make up its sampling pool under § 704(B)(5) by the start of the first applicable monitoring period under § 704(D) that commences after promulgation of these regulations, unless the Director has waived prior Director- approval of non-first-draw sample sites selected by the water system pursuant to § 704(B)(5); or
    - b. If the Director has waived prior approval of non-first-draw sample sites selected by the water system, identify, in writing, each site that did not meet the six-hour minimum standing time and the length of standing time for that particular substitute sample collected pursuant to § 704(B)(5) and include this information with the lead and copper tap sample results required to be submitted pursuant to subsection (A)(1)(i) of this section.

3. No later than 60 days after the addition of a new source or any change in water treatment, unless the Director requires earlier notification, a water system deemed to have optimized corrosion control under § 706(B)(3), a water system subject to reduced monitoring pursuant to § 704 (D)(5), or a water system subject to a monitoring waiver pursuant to § 704(G), shall send written documentation to the Director describing the change. In those instances where prior Director approval of the treatment change or new source is not required, water systems are encouraged to provide the notification to the Director beforehand to minimize the risk the treatment change or new source will adversely affect optimal corrosion control.
  4. Any small water system applying for a monitoring waiver under § 704(G), or subject to a waiver granted pursuant to § 704(G)(3), shall provide the following information to the Director in writing by the specified deadline:
    - a. By the start of the first applicable monitoring period in § 704(D), any small water system applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of §§ 704(G)(1) and (2).
    - b. No later than nine years after the monitoring previously conducted pursuant to §704(G)(2) or §704(G)(4)(a), each small water system desiring to maintain its monitoring waiver shall provide the information required by §704(G)(4)(a) and (b).
    - c. No later than 60 days after it becomes aware that it is no longer free of lead-containing and/or copper-containing material, as appropriate, each small water system with a monitoring waiver shall provide written notification to the Director, setting forth the circumstances resulting in the lead-containing and/or copper-containing materials being introduced into the water system and what corrective action, if any, the water system plans to remove these materials.
    - d. By October 10, 2000, any small water system with a waiver granted prior to the promulgation of these regulations and that has not previously met the requirements of § 704(G)(2) shall provide the information required by that subsection.
  5. Each ground water system that limits water quality parameter monitoring to a subset of entry points under § 707(C)(3) shall provide, by the commencement of such monitoring, written correspondence to the Director that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the water system.
- B. Source water sampling reporting requirements.
1. A public water system shall report the sampling results for all source water samples collected in accordance with § 708 within the first 10 days following the end of each source water sampling period (i.e., annually, per compliance period, per compliance cycle) specified in § 708.
  2. With the exception of the first round of source water sampling conducted pursuant to § 708(B), the water system shall specify any site which was not sampled during previous sampling periods, and include an explanation of why the sampling point has changed.
- C. Corrosion control treatment reporting requirements. By the applicable dates under § 706, public water systems shall report the following information:
1. For public water systems demonstrating that they have already optimized corrosion control, information required in § 706(B)(2) or (3).
  2. For public water systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under § 705(A).
  3. For public water systems required to evaluate the effectiveness of corrosion control treatments under § 705(C), the information required by that subsection.
  4. For public water systems required to install optimal corrosion control designated by the Director under § 705(D), a letter certifying that the public water system has completed installing that treatment.
- D. Source water treatment reporting requirements. By the applicable dates in § 709, public water systems shall provide the following information to the Director:
1. If required under § 709(B)(1), their recommendation regarding source water treatment;

2. For public water systems required to install source water treatment under § 709(B)(2), a letter certifying that the public water system has completed installing the treatment designated by the Director within 24 months after the Director designated the treatment.
- E. Lead service line replacement reporting requirements. Public water systems shall report the following information to the Director to demonstrate compliance with the requirements of § 710:
1. Within 12 months after a public water system exceeds the lead action level in sampling referred to in § 710(A), the public water system shall demonstrate in writing to the Director that it has conducted a material evaluation, including the evaluation in § 704(A), to identify the initial number of lead service lines in its distribution system, and shall provide the Director with the public water system's schedule for replacing annually at least 7 % of the initial number of lead service lines in its distribution system.
  2. Within 12 months after a public water system exceeds the lead action level in sampling referred to in § 710(A), and every 12 months thereafter, the public water system shall demonstrate to the Director in writing that the public water system has either:
    - a. Replaced in the previous 12 months at least 7 % of the initial lead service lines (or a greater number of lines specified by the Director under §710 (E)) in its distribution system, or;
    - b. Conducted sampling which demonstrates that the lead concentration in all service lines samples from an individual line(s), taken pursuant to § 704(B)(3), is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in § 710(C) shall equal at least 7 % of the initial number of lead lines identified under subsection (A) of this section (or the percentage specified by the Director under § 710(E)).
  3. The annual letter submitted to the Director under subsection (E)(2) of this section shall contain the following information:
    - a. The number of lead service lines scheduled to be replaced during the previous year of the public water system's replacement schedule;
    - b. The number and location of each lead service line replaced during the previous year of the public water system's replacement schedule;
    - c. If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.
  4. Any water system which collects lead service line samples following partial lead service line replacement required by §710 shall report the results to the Director within the first ten days of the month following the month in which the water system receives the laboratory results, or as specified by the Director. The Director may eliminate this requirement to report these monitoring results. Water systems shall also report any additional information as specified by the Director, and in a time and manner prescribed by the Director, to verify that all partial lead service line replacement activities have taken place.
- F. Public education program reporting requirements.
1. Any water system that is subject to the public education requirements in § 711 shall, within ten days after the end of each period in which the water system is required to perform public education tasks in accordance with §711(C), send written documentation to the Director that contains:
    - a. A demonstration that the water system has delivered the public education materials that meet the content requirements in § 711(A) and (B) and the delivery requirements in § 711(C); and
    - b. A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the water system delivered public education materials during the period in which the water system was required to perform public education tasks.
  2. Unless required by the Director, a water system that previously has submitted the information required by subsection (F)(1) (b) of this section need not resubmit the information required by subsection (F)(1) (b) of this section, as long as there have been no changes in the distribution list and the water system certifies that the public education materials were distributed to the same list submitted previously.

- G. Reporting of additional sampling data. Any CWS or NTNCWS which collects sampling data in addition to that required by this part shall report the results to the Director within the first ten days following the end of the applicable sampling period under §§ 704, 707, and 708 during which the samples are collected.
- H. Reporting of 90th percentile lead and copper concentrations where the Director calculates a water system's 90th percentile concentrations. A water system is not required to report the 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period, as required by subsection (A)(1)(d) of this section if:
1. The Director has previously notified the water system that it will calculate the water system's 90th percentile lead and copper concentrations, based on the lead and copper tap results submitted pursuant to subsection (H)(2)(a) of this section, and has specified a date before the end of the applicable monitoring period by which the water system must provide the results of lead and copper tap water samples;
  2. The water system has provided the following information to the Director by the date specified in subsection (H)(1) of this section:
    - a. The results of all tap samples for lead and copper including the location of each site and the criteria under § 704(A)(3), (4), (5), (6), and/or (7) under which the site was selected for the water system's sampling pool, pursuant to subsection (A)(1)(a) of this section; and
    - b. An identification of sampling sites utilized during the current monitoring period that were not sampled during previous monitoring periods, and an explanation why sampling sites have changed; and
  3. The Director has provided the results of the 90th percentile lead and copper calculations, in writing, to the water system before the end of the monitoring period.

#### **§ 713 RECORDKEEPING REQUIREMENTS**

Any CWS or NTNCWS subject to the requirements of this part, Part VII-Lead and Copper, shall retain on its premises original records of all sampling data and analyses, reports, surveys, letter, evaluations, schedules, Director determinations, and any other information required by § 706 through § 708. Each public water system shall retain the records required by this section for no fewer than 12 years.