



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY – PUBLIC DRINKING WATER SECTION  
LEAD AND COPPER PROGRAM

Guidance on how to Determine Classification Tiers for tap water sampling

This sampling effort is required by the U.S. Environmental Protection Agency and the Texas Commission on Environmental Quality (TCEQ), the Lead and Copper Rule (LCR) requires you to sample at locations that may be particularly susceptible to high lead or copper concentrations. The LCR establishes a tier system for prioritizing sampling sites. A materials evaluation is required to help classify sampling sites into tiers. TCEQ uses the Sample Site Selection and Materials Survey Form 20467 in order to help you identify these tiers. **This guidance is for the current lead and copper rule published by the TCEQ and effective on May 15, 2011.**

According to 30 TAC §290.117(c), all sites from which lead and copper tap samples are collected shall be selected from a pool of targeted sampling sites identified through the materials survey and approved by TCEQ prior to sampling.

Community Public Water Systems	Non-Transient Non-Community Public Water Systems
<p><b>Tier 1</b> sampling sites are single family structures:</p> <p>copper pipes with lead solder installed after 1982 (<i>but before the Texas state lead ban of 1988</i>) or contain lead pipes; and/or served by a lead service line.</p> <p><b>Note:</b> When multiple-family residences (MFRs) comprise at least 20% of the structures served by a water system, the system may count them as Tier 1 sites.</p>	<p><b>Tier 1</b> sampling sites consist of buildings:</p> <p>copper pipes with lead solder installed after 1982 (<i>but before the Texas state lead ban of 1988</i>) or contain lead pipes; and/or served by a lead service line.</p>
<p><b>Tier 2</b> sampling sites consist of buildings, including MFRs:</p> <p>copper pipes with lead solder installed after 1982 (<i>but before the Texas state lead ban of 1988</i>) or contain lead pipes; and/or served by a lead service line.</p>	<p><b>Tier 2</b> sampling sites consist of buildings with copper pipes with lead solder installed before 1983.</p>
<p><b>Tier 3</b> sampling sites are single family structures with copper pipes having lead solder installed before 1983.</p>	
<p><b>Representative Sample:</b> If a CWS or NTNCWS cannot collect enough samples from tiered sites, it must collect them from sites where the plumbing is similar to that used at other sites served by the water system.</p>	



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Sources of information that you should review to identify enough sites that meet targeting criteria, you should survey all records documenting the materials used to construct and repair your distribution system and buildings connected to your distribution system. Relevant information can be attained through the following sources:

Plumbing Codes;  
Plumbing Permits;  
Distribution Maps and Drawings;  
Inspection and Maintenance Records;  
Meter Installation Records;  
Capital Improvement and Master Plans;  
Standard Operating Procedures;  
Operation and Maintenance Manuals;  
Permit Files;  
Existing Water Quality Data;  
Interviews with Senior Personnel, Building Inspectors, and Retirees;  
Community Surveys

If the public water system contains lead service lines, then, if possible, half of the required sampling sites should be served by a lead service line. For a system required to collect 40 tap samples, your sampling plan should include 20 sites that are served by a lead service line, and you should try to maintain a list of about 30 to 40 sampling sites served by lead service lines to ensure access to enough sites. Use TCEQ Sampling Site Selection Form and Materials Survey Form 20467 and include a map with locations of all lead service lines and lead plumbing found in the system.

If you are unable to collect all your samples from Tier 1 sites, then you must follow the procedures discussed below:

- When a sufficient number of Tier 1 sites do not exist or are inaccessible (e.g., homeowner denies permission for you to collect a sample), you must complete your sampling pool with Tier 2 sites.
- For CWSs, when a sufficient number of Tier 1 and 2 sites do not exist or are inaccessible, you must complete your sampling pool with Tier 3 sites.
- Any water system that cannot complete its sampling at sites that meet the applicable tier criteria must complete sampling at representative sites throughout the distribution system.
- You are not required to target buildings with lead solder installed after the effective date that the lead ban was adopted in your State.
- You should not monitor at sampling sites that have water softeners; however, if all of your available sampling sites have water softeners, you should identify the highest risk sites (Tier 1) and monitor at those locations (such as a kitchen or bathroom tap).
- If you are not able to draw at least half of your samples from taps served by lead service lines, you must collect a sample from each *available* site that is served by a lead service line.
- If you have no lead service lines, but you have lead goosenecks or pigtails, you can collect tap water samples at the sites with the goosenecks and/or pigtails.