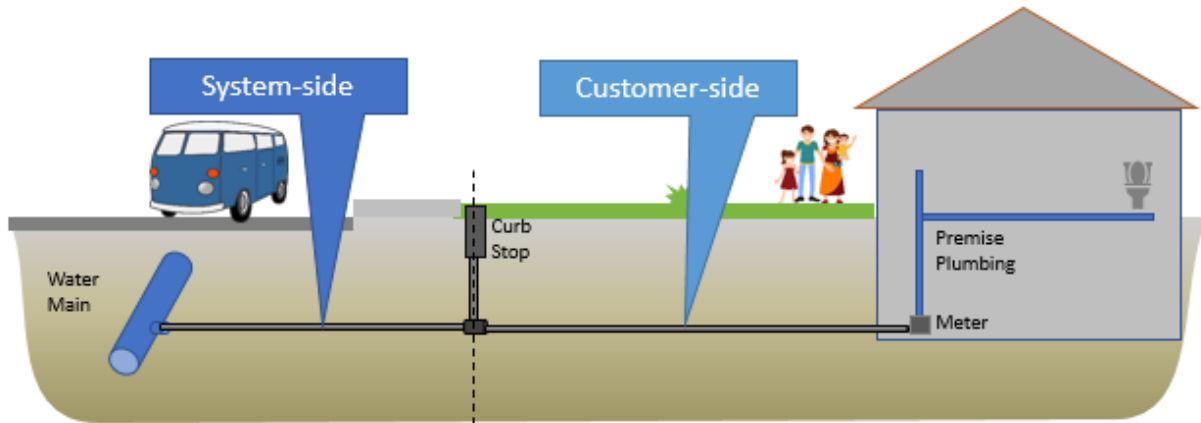


Training Excerpt

SUFFICIENT EVIDENCE FOR NON-LEAD – JOB AID

To categorize pipe material as non-lead (e.g. copper), the water system is expected to show sufficient evidence through one of the “stand-alone” verification options, or a combination of 2 or more other methods as described below.

Note: For systems that own a portion of the service line, such as shown below, the pipe material for both the customer and system portions must be identified.



“Stand-Alone” Records Method Options: The following options do not need to be combined with another method to verify a pipe is non-lead:

- Records indicating service line installation/replacement date after January 6, 1991 (the effective date of the PA Lead Ban)
- OR-**
- Record of a local ordinance or plumbing codes prohibiting lead service line installation and water system records indicating service line installation/replacement after the ordinance effective date.

Combination of Two (or more) Other Methods: If water system records do not meet either of the stand-alone criteria above, the system may use any TWO other investigation techniques from the list below:

- Records review
- Modeling/Statistical analysis
- Water sampling (5th liter sampling, if system does not have corrosion control treatment)
- Field verification; when combined with another method the options include*:
 - Visual inspection at existing access point (This includes any access points in which the material type can clearly be determined, such as a meter pit, or the service line entry to the basement at the customer side)
 - CCTV inspection outside pipe – at curb box
 - Mechanical excavation at a location along each half of the service line (i.e. customer-side and system-side)

* **Representative Field Verification:** Note that if a system is verifying records using a field method, a statistically sound subset of service lines can be field verified, rather than every line. Systems can follow the procedure established in the [Michigan EGLE “Minimum Service Line Material Verification Requirements”](#) document. This method should only be used for a homogeneous area, such as a residential neighborhood in which the houses were built in the same time period.

- Other method reviewed by DEP

“Stand-Alone” Field Method Options: If a system does not have any records, then there are two stand-alone field method options. Use ONE of the following verification methods:

- Internal CCTV inspection over the full length of the service line
- OR –
- Mechanical excavation in at least 3 locations over the length of the service line as follows (visual below):
 - Curb stop to building:
 - A minimum of 18 inches from the curb stop
 - Or, if the distance to the building is less than 18 inches, halfway to the building
 - Curb stop to water main:
 - A minimum of 18 inches from the curb stop
 - Or, if the distance to the water main is less than 18 inches, halfway to the main
 - Third point (choose one):
 - Inside the home where the service line enters (inspected by water system personnel, not customer)
 - A second excavation point in the longer section of service line that is at least halfway between the first point and the building or water main
 - EXCEPTION: If the system is using mechanical excavation as the means of identification on only one side of a jointly-owned system, then only two-points of verification are needed on that side (e.g., the system has records of the pipe material for the system side, but no records for the customer side). The second point can be a visual inspection inside the home, or mechanical excavation.

