

VILLAGE OF NORTHBROOK

STANDARD OPERATING PROCEDURES

TITLE: Lead Line Replacement - Remodeling (revised)

Page 1 of 2

Number: 81-015 02

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Dept. Public Works

Distribution: Groups 1, 2, 3, 4, 5, 6

Department Head

Assistant Village Manager

INDEX: SOP
LEAD LINE REPLACEMENT – REMODELING (revised)

BACKGROUND: The United States Environmental Protection Agency (USEPA) has a statistical "yardstick" for lead concentrations in drinking water which involves a concept defined as "action level". The current action level for lead is 15 micrograms per liter ($\mu\text{g/l}$). If more than 10% of a community's required samples exceed the new action level, it will be required to implement certain corrosion control measures. In the event such efforts are not effective in reducing lead levels during subsequent testing rounds, additional work may be required, including replacement of approximately 7% of lead service lines annually. It is estimated there are approximately 1,600 lead lines in the Village.

Studies have shown that there is a potential for lead contamination to originate within a consumer's service line and interior plumbing. Lead enters drinking water primarily as a result of the gradual corrosion, or wearing away, of materials containing lead in the service line and household plumbing. These materials include lead pipes, copper pipes containing lead-based solder and faucet fixtures containing lead. Northbrook has required copper service lines for more than forty (40) years and the practice of using lead-based solder in plumbing was banned in 1986. The Village has been adding poly-orthophosphate to its water since September, 1995 for lead and copper corrosion control.

Northbrook requires, via SOP 81-023, that all structures which are served by lead lines, and which are being demolished in accordance with a standard demolition permit, must install a new copper service line to whatever structure is to be built upon the site. Previously, no such requirement was in place for structures undergoing extensive renovation and remodeling. As a matter of public policy, Northbrook has been replacing all lead service lines encountered during water main replacement projects since 1988.

POLICY: The Illinois Administrative Code, Part 890 (Illinois Plumbing Code), Section 890.110 and 140 state that any renovation or remodeling plumbing work must correct any health or safety hazard. It is the policy of the Village to vigorously follow the intent of that provision in order to identify and eliminate all sources of potential lead contamination of potable water.

PURPOSE: To insure that as many existing lead water service lines as practical are eliminated from Northbrook's distribution system in due time in order to protect customer health while ensuring compliance with the intent of the Illinois Plumbing Code and USEPA mandate. This SOP confers the obligation and authority upon Village staff to ensure that all significant remodeling work involving plumbing systems includes abandonment of any known or suspected lead service lines within the structure and on the site from the right-of-way or service line shut-off box (also known as curb stop, B-box or Buffalo-box) to the structure.

- PROCEDURE:
- A. Any lead water service line shall be replaced in its entirety as part of any remodeling that involves:
 - 1. any repairs to the water service line itself; or
 - 2. plumbing work that involves the addition or relocation of three or more fixtures; or
 - 3. any large scale addition or renovation of the structure (i.e. more than 50% of the floor area) which includes any modification of the interior plumbing system.
 - B. If replacement of the service line requires excavation of or directional boring under a Village road and if such excavation would require special traffic control, restoration or other techniques or methods, the Village may, at its option, elect to contribute its services to assist with excavation or related construction activities. This assistance will normally be limited to circumstances where:
 - 1. it is the Village's best interest to participate in order to minimize disruption to normal traffic flow and potential long term liability; and
 - 2. the proposed remodeling is clearly intended to substantially renovate or expand an existing structure.
 - C. Staff, including the Plumbing Inspector, Water Distribution and Meter Services/Water Quality Supervisors and Engineering representatives shall work cooperatively to ensure compliance with the spirit and intent of this policy.
 - D. In the unusual and unlikely circumstance where the property owner asserts that compliance with all requirements of this SOP would result in an undue hardship due to excessive structural or mechanical difficulty, or impracticality, a variance may be granted by the Director of Public Works. The request for variance must be submitted in writing by the property owner to the Public Works Department for review and approval or denial prior to issuance of a permit.
 - E. In order to encourage opportunities to eliminate lead service lines, the Director of Public Works or his designee may, depending upon the specific circumstances, elect to pay for the pro rata share of replacement for that portion of the service located within public right-of-way on the far side of the street. Such payment or reimbursement may be in the form of a credit, waiver of fees, or in-kind contributions of labor or material. In such instances, the property owner shall furnish evidence of three competitive bids for replacement of the lead service line. This shall not be an option in instances involving total demolition/reconstruction. In those instances, the builder shall, in accordance with SOP-023, be responsible for all costs associated with lead line abandonment and replacement.