

**§ 300g-6. Prohibition on use of lead pipes, solder, and flux**

**(a) In general**

**(1) Prohibitions**

**(A) In general**

No person may use any pipe, any pipe or plumbing fitting or fixture, any solder, or any flux, after June 19, 1986, in the installation or repair of—

- (i) any public water system; or
- (ii) any plumbing in a residential or non-residential facility providing water for human consumption,

that is not lead free (within the meaning of subsection (d)).

**(B) Leaded joints**

Subparagraph (A) shall not apply to leaded joints necessary for the repair of cast iron pipes.

**(2) Public notice requirements**

**(A) In general**

Each owner or operator of a public water system shall identify and provide notice to persons that may be affected by lead contamination of their drinking water where such contamination results from either or both of the following:

- (i) The lead content in the construction materials of the public water distribution system.
- (ii) Corrosivity of the water supply sufficient to cause leaching of lead.

The notice shall be provided in such manner and form as may be reasonably required by the Administrator. Notice under this paragraph shall be provided notwithstanding the absence of a violation of any national drinking water standard.

**(B) Contents of notice**

Notice under this paragraph shall provide a clear and readily understandable explanation of—

- (i) the potential sources of lead in the drinking water,
- (ii) potential adverse health effects,
- (iii) reasonably available methods of mitigating known or potential lead content in drinking water,
- (iv) any steps the system is taking to mitigate lead content in drinking water, and
- (v) the necessity for seeking alternative water supplies, if any.

**(3) Unlawful acts**

Effective 2 years after August 6, 1996, it shall be unlawful—

(A) for any person to introduce into commerce any pipe, or any pipe or plumbing fitting or fixture, that is not lead free, except for a pipe that is used in manufacturing or industrial processing;

(B) for any person engaged in the business of selling plumbing supplies, except manufacturers, to sell solder or flux that is not lead free; or

(C) for any person to introduce into commerce any solder or flux that is not lead free

unless the solder or flux bears a prominent label stating that it is illegal to use the solder or flux in the installation or repair of any plumbing providing water for human consumption.

**(4) Exemptions**

The prohibitions in paragraphs (1) and (3) shall not apply to—

(A) pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or

(B) toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, fire hydrants, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

**(b) State enforcement**

**(1) Enforcement of prohibition**

The requirements of subsection (a)(1) shall be enforced in all States effective 24 months after June 19, 1986. States shall enforce such requirements through State or local plumbing codes, or such other means of enforcement as the State may determine to be appropriate.

**(2) Enforcement of public notice requirements**

The requirements of subsection (a)(2) shall apply in all States effective 24 months after June 19, 1986.

**(c) Penalties**

If the Administrator determines that a State is not enforcing the requirements of subsection (a) as required pursuant to subsection (b), the Administrator may withhold up to 5 percent of Federal funds available to that State for State program grants under section 300j-2(a) of this title.

**(d) Definition of lead free**

**(1) In general**

For the purposes of this section, the term “lead free” means—

(A) not containing more than 0.2 percent lead when used with respect to solder and flux; and

(B) not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.

**(2) Calculation**

The weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture shall be calculated by using the following formula: For each wetted component, the percentage of lead in the component shall be multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product to arrive at the weighted percentage of lead of the component. The weighted percentage of lead of each wetted component shall be added together, and the sum of these weighted percentages shall constitute the weighted average lead content of the product. The lead content of the material

used to produce wetted components shall be used to determine compliance with paragraph (1)(B). For lead content of materials that are provided as a range, the maximum content of the range shall be used.

**(e) Plumbing fittings and fixtures**

**(1) In general**

The Administrator shall provide accurate and timely technical information and assistance to qualified third-party certifiers in the development of voluntary standards and testing protocols for the leaching of lead from new plumbing fittings and fixtures that are intended by the manufacturer to dispense water for human ingestion.

**(2) Standards**

**(A) In general**

If a voluntary standard for the leaching of lead is not established by the date that is 1 year after August 6, 1996, the Administrator shall, not later than 2 years after August 6, 1996, promulgate regulations setting a health-effects-based performance standard establishing maximum leaching levels from new plumbing fittings and fixtures that are intended by the manufacturer to dispense water for human ingestion. The standard shall become effective on the date that is 5 years after the date of promulgation of the standard.

**(B) Alternative requirement**

If regulations are required to be promulgated under subparagraph (A) and have not been promulgated by the date that is 5 years after August 6, 1996, no person may import, manufacture, process, or distribute in commerce a new plumbing fitting or fixture, intended by the manufacturer to dispense water for human ingestion, that contains more than 4 percent lead by dry weight.

**(f) Public education**

**(1) In general**

The Administrator shall make information available to the public regarding lead in drinking water, including information regarding—

(A) risks associated with lead in drinking water;

(B) the conditions that contribute to drinking water containing lead in a residence;

(C) steps that States, public water systems, and consumers can take to reduce the risks of lead in drinking water; and

(D) the availability of additional resources that consumers can use to minimize lead exposure, including information on sampling for lead in drinking water.

**(2) Vulnerable populations**

In making information available to the public under this subsection, the Administrator shall, subject to the availability of appropriations, carry out targeted outreach strategies that focus on educating groups within the general population that may be at greater risk than the general population of adverse health effects from exposure to lead in drinking water.

(July 1, 1944, ch. 373, title XIV, §1417, as added Pub. L. 99-339, title I, §109(a), June 19, 1986, 100 Stat. 651; amended Pub. L. 104-182, title I, §118, title V, §501(f)(1), Aug. 6, 1996, 110 Stat. 1645, 1691; Pub. L. 111-380, §2(a), Jan. 4, 2011, 124 Stat. 4131; Pub. L. 113-64, §2, Dec. 20, 2013, 127 Stat. 668; Pub. L. 114-322, title II, §2106(b), Dec. 16, 2016, 130 Stat. 1726.)

AMENDMENTS

2016—Subsec. (f). Pub. L. 114-322 added subsec. (f).

2013—Subsec. (a)(4)(B). Pub. L. 113-64 inserted “fire hydrants,” after “shower valves.”

2011—Subsec. (a)(4). Pub. L. 111-380, §2(a)(1), added par. (4).

Subsec. (d). Pub. L. 111-380, §2(a)(2), amended subsec. (d) generally. Prior to amendment, subsec. (d) defined “lead free” when used with respect to solders and flux, pipes and pipe fittings, and plumbing fittings and fixtures.

1996—Pub. L. 104-182, §501(f)(1), made technical amendment to section catchline and subsec. (a) designation.

Subsec. (a)(1). Pub. L. 104-182, §118(1), substituted “Prohibitions” for “Prohibition” in heading and amended text generally. Prior to amendment, text read as follows: “Any pipe, solder, or flux, which is used after June 19, 1986, in the installation or repair of—

“(A) any public water system, or

“(B) any plumbing in a residential or nonresidential facility providing water for human consumption which is connected to a public water system, shall be lead free (within the meaning of subsection (d) of this section). This paragraph shall not apply to leaded joints necessary for the repair of cast iron pipes.”

Subsec. (a)(2)(A). Pub. L. 104-182, §118(2), inserted “owner or operator of a” after “Each” in introductory provisions.

Subsec. (a)(3). Pub. L. 104-182, §118(3), added par. (3).

Subsec. (d)(3). Pub. L. 104-182, §118(4), added par. (3).

Subsec. (e). Pub. L. 104-182, §118(5), added subsec. (e).

EFFECTIVE DATE OF 2011 AMENDMENT

Pub. L. 111-380, §2(b), Jan. 4, 2011, 124 Stat. 4132, provided that: “The provisions of subsections (a)(4) and (d) of section 1417 of the Safe Drinking Water Act [42 U.S.C. 300g-6(a)(4), (d)], as added by this section, apply beginning on the day that is 36 months after the date of the enactment of this Act [Jan. 4, 2011].”

EVALUATION OF SOURCES OF LEAD IN WATER DISTRIBUTION SYSTEMS AND ALTERNATE ROUTING SYSTEMS

Pub. L. 113-64, §3, Dec. 20, 2013, 127 Stat. 668, provided that: “The Administrator of the Environmental Protection Agency shall—

“(1) consult with and seek the advice of the National Drinking Water Advisory Council on potential changes to the regulations pertaining to lead under the Safe Drinking Water Act (42 U.S.C. 300f et seq.); and

“(2) request the Council to consider sources of lead throughout drinking water distribution systems, including through components used to reroute drinking water during distribution system repairs.”

NOTIFICATION TO STATES

Pub. L. 99-339, title I, §109(b), June 19, 1986, 100 Stat. 652, provided that: “The Administrator of the Environmental Protection Agency shall notify all States with respect to the requirements of section 1417 of the Public Health Service Act [42 U.S.C. 300g-6] within 90 days after the enactment of this Act [June 19, 1986].”

BAN ON LEAD WATER PIPES, SOLDER, AND FLUX IN VA AND HUD INSURED OR ASSISTED PROPERTY

Pub. L. 99-339, title I, §109(c), June 19, 1986, 100 Stat. 652, as amended by Pub. L. 102-54, §13(q)(2), June 13, 1991, 105 Stat. 279, provided that:

“(1) PROHIBITION.—The Secretary of Housing and Urban Development and the Secretary of Veterans Affairs may not insure or guarantee a mortgage or furnish assistance with respect to newly constructed residential property which contains a potable water system unless such system uses only lead free pipe, solder, and flux.

“(2) DEFINITION OF LEAD FREE.—For purposes of paragraph (1) the term ‘lead free’—

“(A) when used with respect to solders and flux refers to solders and flux containing not more than 0.2 percent lead, and

“(B) when used with respect to pipes and pipe fittings refers to pipes and pipe fittings containing not more than 8.0 percent lead.

“(3) EFFECTIVE DATE.—Paragraph (1) shall become effective 24 months after the enactment of this Act [June 19, 1986].”

### § 300g-7. Monitoring of contaminants

#### (a) Interim monitoring relief authority

##### (1) In general

A State exercising primary enforcement responsibility for public water systems may modify the monitoring requirements for any regulated or unregulated contaminants for which monitoring is required other than microbial contaminants (or indicators thereof), disinfectants and disinfection byproducts or corrosion byproducts for an interim period to provide that any public water system serving 10,000 persons or fewer shall not be required to conduct additional quarterly monitoring during an interim relief period for such contaminants if—

(A) monitoring, conducted at the beginning of the period for the contaminant concerned and certified to the State by the public water system, fails to detect the presence of the contaminant in the ground or surface water supplying the public water system; and

(B) the State, considering the hydrogeology of the area and other relevant factors, determines in writing that the contaminant is unlikely to be detected by further monitoring during such period.

##### (2) Termination; timing of monitoring

The interim relief period referred to in paragraph (1) shall terminate when permanent monitoring relief is adopted and approved for such State, or at the end of 36 months after August 6, 1996, whichever comes first. In order to serve as a basis for interim relief, the monitoring conducted at the beginning of the period must occur at the time determined by the State to be the time of the public water system's greatest vulnerability to the contaminant concerned in the relevant ground or surface water, taking into account in the case of pesticides the time of application of the pesticide for the source water area and the travel time for the pesticide to reach such waters and taking into account, in the case of other contaminants, seasonality of precipitation and contaminant travel time.

#### (b) Permanent monitoring relief authority

##### (1) In general

Each State exercising primary enforcement responsibility for public water systems under

this subchapter and having an approved source water assessment program may adopt, in accordance with guidance published by the Administrator, tailored alternative monitoring requirements for public water systems in such State (as an alternative to the monitoring requirements for chemical contaminants set forth in the applicable national primary drinking water regulations) where the State concludes that (based on data available at the time of adoption concerning susceptibility, use, occurrence, or wellhead protection, or from the State's drinking water source water assessment program) such alternative monitoring would provide assurance that it complies with the Administrator's guidelines. The State program must be adequate to assure compliance with, and enforcement of, applicable national primary drinking water regulations. Alternative monitoring shall not apply to regulated microbiological contaminants (or indicators thereof), disinfectants and disinfection byproducts, or corrosion byproducts. The preceding sentence is not intended to limit other authority of the Administrator under other provisions of this subchapter to grant monitoring flexibility.

##### (2) Guidelines

###### (A) In general

The Administrator shall issue, after notice and comment and at the same time as guidelines are issued for source water assessment under section 300j-13 of this title, guidelines for States to follow in proposing alternative monitoring requirements under paragraph (1) for chemical contaminants. The Administrator shall publish such guidelines in the Federal Register. The guidelines shall assure that the public health will be protected from drinking water contamination. The guidelines shall require that a State alternative monitoring program apply on a contaminant-by-contaminant basis and that, to be eligible for such alternative monitoring program, a public water system must show the State that the contaminant is not present in the drinking water supply or, if present, it is reliably and consistently below the maximum contaminant level.

###### (B) Definition

For purposes of subparagraph (A), the phrase “reliably and consistently below the maximum contaminant level” means that, although contaminants have been detected in a water supply, the State has sufficient knowledge of the contamination source and extent of contamination to predict that the maximum contaminant level will not be exceeded. In determining that a contaminant is reliably and consistently below the maximum contaminant level, States shall consider the quality and completeness of data, the length of time covered and the volatility or stability of monitoring results during that time, and the proximity of such results to the maximum contaminant level. Wide variations in the analytical results, or analytical results close to the maximum contaminant level, shall not be considered to be