

Review of Wisconsin's Lead Pipe and Lead Solder Bans

Wisconsin Department of Natural Resources
Environmental Management Division
Drinking Water and Groundwater Program

Last updated: July 2026

Agenda

1. Federal and State Lead Pipe Ban Dates
2. Scope of Review
3. Lead Solder and Lead Pipe Ban Language
4. Impact on Public Water Systems

Agenda - 1

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Federal Lead Pipe Ban

1986

Promulgated

1988

Effective

Wisconsin Lead Pipe Ban

June
21,
1988

Promulgated

July 1,
1988

Effective

Wisconsin Lead Solder Ban

Aug.
31,
1985

Promulgated

Sept. 1,
1985

Effective

Impact on Public Water Systems

- The 1988 WI lead ban date affects compliance with some LCRI requirements in the revised NR 809:



Baseline inventory



Nonlead validation

Agenda - 2

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4. Impact on Public Water Systems

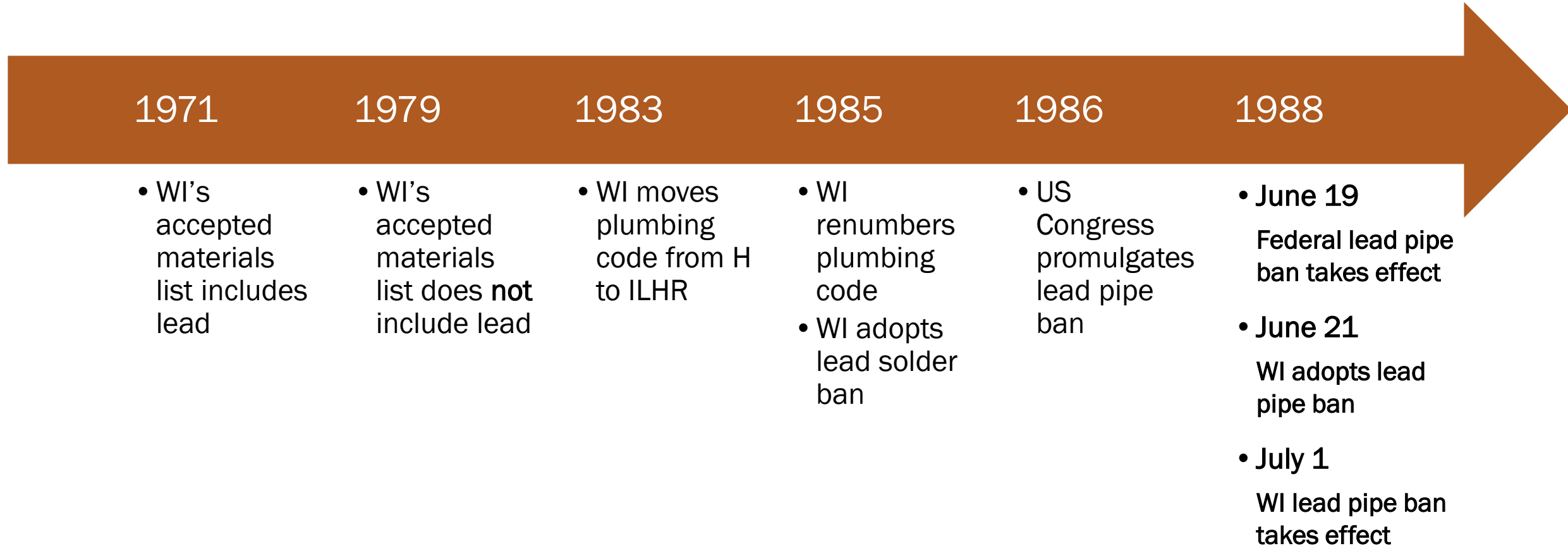
Reason for lead pipe ban review

- The Wisconsin DNR received recent inquiries about whether the state had banned lead before the 1986 federal lead ban promulgation
- The Wisconsin DNR conducted review of Wis. Admin. Codes and Statutes to investigate potential state lead ban before federal lead ban
- The goal of review was to determine the dates of the state's lead pipe ban

WI Statute & Admin. Code Review

- Reviewed WI Statutes and Acts dated 1971-1988
- Reviewed WI Admin Codes dated 1971-1988
- From 1971-1988, only WI Plumbing Code regulated materials in water distribution and plumbing systems
 - H 62 & ILHR 84

WI Plumbing Code Timeline



Agenda - 3

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1985 WI lead solder ban

(17) JOINTS BETWEEN PIPE AND FITTINGS OF DIFFERENT MATERIALS. (a) *General.* Joints between different piping materials shall be made with a mechanical joint of the compression or mechanical sealing type, unless otherwise permitted in this chapter.

1. Connectors of adaptors shall have an elastomeric seal conforming to ASTM C425, ASTM C443, ASTM C564, ASTM D1869 or ASTM F477.

2. Joints shall be installed in accordance with the department approval and the manufacturer's instructions.

3. Joints and connections between different piping materials in the water supply system shall be accessible.

(b) *Copper or copper alloy pipe to cast iron hub pipe.* Joints between copper or copper alloy pipe and cast iron hub pipe shall be made by use of a brass ferrule. The copper or copper alloy tubing shall be properly soldered to the ferrule, and the ferrule shall be joined to the cast iron hub by a caulked joint or mechanical compression joint. If the tubing and ferrule are part of a water supply system, a lead-free solder and, when required, a lead-free flux shall be used to make the joint. Lead-free shall mean a chemical composition equal to or less than 0.2% of lead.

(c) *Copper or copper alloy pipe to galvanized steel pipe.* Joints between copper or copper alloy pipe and galvanized steel pipe shall be made by the use of a brass converter fitting or dielectric fitting. The copper tubing shall be properly soldered to the fitting, and the fitting shall be screwed to the threaded pipe. If the tubing and fitting are part of a water supply system, a lead-free solder and, when required, a lead-free flux shall be used to make the joint. Lead-free shall mean a chemical composition equal to or less than 0.2% of lead.

Register, August, 1985, No. 356

1988 WI lead pipe ban

SECTION 1. ILHR 84.30 (4) (intro.) is amended to read:

ILHR 84.30 (4) WATER SUPPLY SYSTEMS. Water supply systems shall be of such material and workmanship as set forth in this subsection. All materials in contact with water, in a water supply system, shall be suitable for use with potable water. All pipes and pipe fittings for water supply systems shall be made of a material that contains not more than 8.0 percent lead.

SECTION 2. ILHR 84.30-11, Note b, is created to read:

Table 84.30-11, Note b: See s. ILHR 84.30 (4) (intro.) concerning the maximum lead content for fittings.

1988 WI lead pipe ban – rule analysis

ANALYSIS OF RULES

Statutory authority ss. 101.02 (1) and 145.02 (2), Stats.
Statutes interpreted s. 145.02 (1); Stats.

Under s. 145.02, Stats., the Department of Industry, Labor and Human Relations has the responsibility of safeguarding public health and the waters of the state relative to the construction, installation and maintenance of plumbing. One mechanism of the Department to fulfill this responsibility has been the promulgation of the state uniform plumbing code.

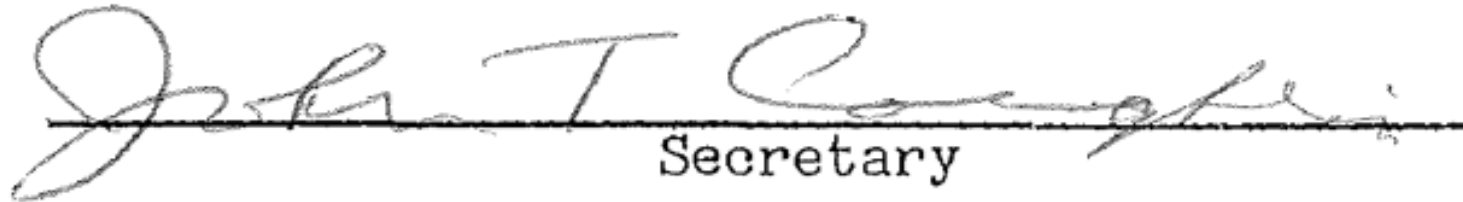
The proposed rules bring the plumbing code into alignment with the 1986 Amendments of the U.S. Safe Drinking Water Act, Pub. L. 99-339, June 19, 1986. One provision of these Amendments mandates a maximum lead content of 8.0 percent for pipes and fittings of water supply systems. The Amendments of the Safe Drinking Water Act require states to adopt such a standard by June 19, 1988, otherwise, the United States Environmental Protection Agency may withhold up to 5 percent of a state's Public Water System Supervision program grant.

1988 WI lead pipe ban – adoption date

Adopted at Madison, Wisconsin, this

date: June 21, 1988

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN
RELATIONS


Secretary

1988 WI lead pipe ban – effective date

ORDER OF ADOPTION

RECEIVED

JUN 21 1988

Revisor of Statutes
Bureau

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s) 101.02(1) and 145.02(2), Stats., the Department of Industry, Labor and Human Relations ☒ creates; ☒ amends; ☐ repeals and recreates; ☐ repeals and adopts rules of Wisconsin Administrative Code chapter (s):

ILHR 84

(Number)

Plumbing Code

(Title)

The attached rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register pursuant to section 227.22, Stats.

Agenda - 4

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Impact on Public Water Systems?

- The 1988 WI lead ban date affects compliance with some LCRI requirements in the revised NR 809:



Baseline inventory



Nonlead validation

Baseline Inventory Impact

- Public Water Systems (PWS) will use June 19, 1988, as the lead ban date when classifying materials as nonlead in baseline inventories:
 - PWSs with an earlier local or municipal lead ban can still use that earlier date to identify nonlead materials in their baseline inventories
 - Some PWSs will need to update service line material classifications and bases for their baseline inventory

Baseline Inventory – *Options for basis of material classification*

Answer options	Answer Option Descriptions (Chapter 4 of EPA inventory guidance)
Previous eval	Previous Materials Evaluation
Installation record	Installation record (e.g., tap card)
Diameter > 2 inches	Service line diameter is > 2 inches
Water sampling only	Water sampling only with no records
SL Replacement Record	Service line replacement record
SL Repair Record	Service line repair record
Record showing SL installed after 6/19/88	SL installed after 1988 w/ record
Record showing SL installed after local lead ban	SL installed after local lead ban w/ record
One-point visual inspection	One-point visual inspection of street side portion of the service line
Two-point visual inspection	Two-point visual inspection of street side portion of the service line
Other - describe in notes	Other - if other is selected describe the basis for material classification in the Notes Column AD.

Example: Small Town, WI page 1 of 4

- Small Town, Wisconsin has 600 service lines classified as nonlead in its initial inventory.
- 200 service lines were classified as nonlead using the basis “installed after lead ban.”
- 100 of those lines were installed in 1989 or later.
- 40 of those lines were installed in 1986, 1987, or 1988.
- 10 of those lines do not have an install date listed.
- The water system will need to review its records and all other evidence-based sources of information it has on the 40 service lines installed in 1986, 1987, and 1988, and the 10 service lines without an install date listed. (See next slides for details.)

Example: Small Town, WI *page 2 of 4*

- Service lines installed in 1986 and 1987 – check if the records indicate service line material
 - These lines will be classified lead-status-unknown (LSU; also referred to as UNK-LG) *unless* there is another evidence-based method or technique that demonstrates they are confirmed nonlead.

Example: Small Town, WI *page 3 of 4*

- Service lines installed in 1988 – check if the service lines were installed after June 19, 1988
 - These lines will be classified nonlead installed after lead ban if records indicate they were installed after June 19, 1988.
 - These lines will be classified LSU if records indicate they were installed before June 19, 1988, *unless* there is another evidence-based method or technique that demonstrates they are confirmed nonlead.

Example: Small Town, WI *page 4 of 4*

- Service lines with no date and a basis "installed after lead ban" - check if records indicate service line material or install date
 - These lines will be classified nonlead installed after lead ban if records indicate they were installed after June 19, 1988.
 - These lines will be classified nonlead install record if records indicate they are nonlead material.
 - These lines will be classified LSU if records indicate they were installed before June 19, 1988, and the record does not indicate the material, *unless* there is another evidence-based method or technique that demonstrates they are confirmed nonlead.

Baseline Inventory Impact

Public Water Systems affected

6.1% of PWSs in WI have at least one SL identified as nonlead based on being “installed after lead ban” and the install date was in 1986, 1987, or 1988

System type	Number	Percentage
Non-Transient Noncommunity	1	0.1%
Other-than-Municipal Community	9	2.3%
Municipal Community	106	17.3%
TOTAL, all types	116	6.1%

Numbers reflect data as of May 2026

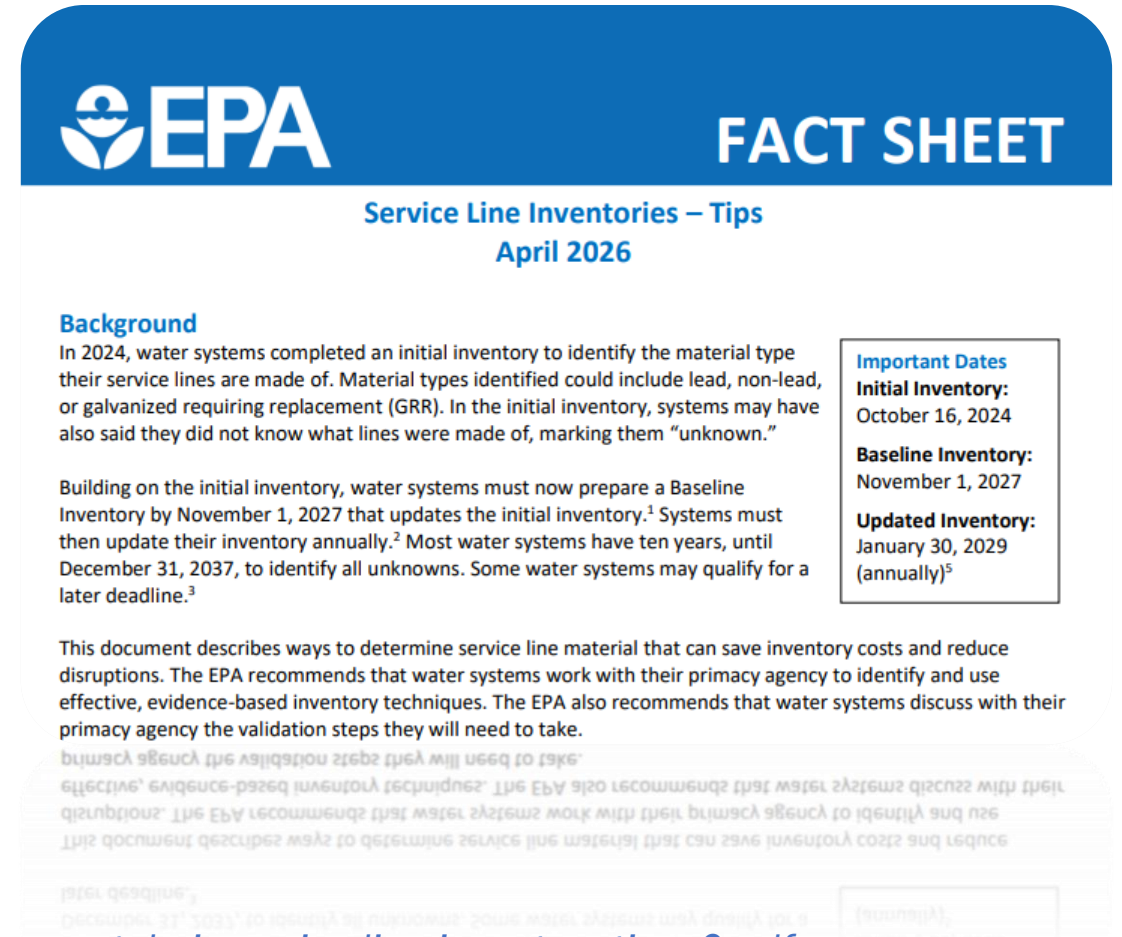
Nonlead Validation

- PWSs must validate a random sample of their nonlead service lines by 2034
- The LCRI and new State rule in NR 809 specify which nonlead lines must be included in the validation pool
- Lines classified as nonlead using a record demonstrating install after June 19, 1988, do **not** need to be included in validation pool

New Flexibilities for Baseline Inventories

The draft EPA Factsheet “Service Line Inventory Tips”* suggests that EPA is opening the door to new flexibilities that could significantly reduce the number of service lines that PWSs will have to investigate in the field for baseline inventories.

- ✓ Supports the use of statistical analysis and predictive modeling to identify service line materials.
- ✓ Opens the door to allowing “personnel experience” as a basis for material classification under some conditions



*https://www.epa.gov/system/files/documents/2026-04/forcomment_lcri_service-line-inventory-tips_0.pdf

Supports for Baseline Inventories

- Service Line Inventory Submittal Portal (SLISP) available now.
- Instructional information, presentations, and resources coming fall 2026
- Information and technical assistance from DNR lead and copper field specialists
- Free technical assistance with baseline inventory development from Jacobs Engineering
- Beginning 2027, the scope of Jacob's free technical assistance will be expanded to include potholing for some small water systems

Coming up soon...

Fall
2026

- Resources and trainings available

Nov. 1, 2027

- Compliance date for LCRI requirements in NR 809

Questions?

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OFF THE RECORD"