

CR 84-242

# RULES CERTIFICATE

STATE OF WISCONSIN )  
 ) SS  
DEPT. OF INDUSTRY, )  
LABOR & HUMAN RELATIONS)

RECEIVED

FEB 22 1985  
9:45 am  
Revisor of Statutes  
Bureau

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Howard S. Bellman, Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said department, do hereby certify that the annexed rule(s) relating to Prohibition of Lead-Based Solders and Fluxes in Plumbing Systems were duly approved and adopted by this department on 2/21/85.  
(Subject) (Date)

I further certify that said copy has been compared by me with the original on file in this department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at 10:30 in the city of Madison, this 21<sup>st</sup> day of February A.D. 19 85.

Howard S. Bellman  
Secretary





# RULES in FINAL DRAFT FORM

**Rule:** ILHR 84.40 (5), (8) and (17)

**Relating to:** Prohibition of Lead-Based Solders and  
Fluxes in Plumbing Systems

**Clearinghouse Rule No.:** 84-242

AN ORDER to amend s. ILHR 82.40 (6) (a); to repeal and recreate s. ILHR 84.40 (5) (a), (8) (a) and (17) (b) and (c); and to create ILHR 82.40 (6) (b), relating to the prohibition of lead-based solders and fluxes in plumbing systems.

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ANALYSIS OF RULES

Pursuant to s. 145.02, Stats., the Department of Industry, Labor and Human Relations has the responsibility of safeguarding public health relative to the construction, installation and maintenance of plumbing.

Recent samples of drinking water by the Department of Natural Resources have detected lead concentrations above the permissible level of 50 parts per billion in several areas in the state. Other current research being conducted nationally has also revealed similar findings in other parts of the country. State investigators concluded that the primary sources of contamination were the lead-based solders and fluxes used to join water supply piping together.

Since the continuous consumption of lead is a potential health hazard, the department is proposing to prohibit the use of lead-based solders and fluxes for joining water supply piping together and to require that new or repaired water supply systems be disinfected before being put into use.

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Pursuant to the authority vest in the state of Wisconsin, Department of Industry, Labor and Human Relations by ss. 101.02 (1) and 145.02 (2), Stats., the department hereby amends rules interpreting ss. 145.02 (1) and (3), and 145.13, as follows:

SECTION 1. ILHR 82.40 (6) (a) (intro.) is amended to read:

ILHR 82.40 (6) DISINFECTION OF POTABLE WATER SYSTEM. (a) Procedure. New or repaired potable water systems ~~should~~ shall be disinfected prior to use. The method to be followed shall be as follows:

SECTION 2. ILHR 82.40 (6) (b) is created to read:

ILHR 82.40 (6) (b) Water quality analysis. The department may require a water quality analysis to be done for a new or repaired potable water system. The analysis shall be performed in accordance with acceptable nationally recognized laboratory practices. The water samples for the analysis may not be taken sooner than 24 hours after the system has been disinfected under par. (a).

SECTION 3. ILHR 84.40 (5) (a) is repealed and recreated to read:

ILHR 84.40 (5) (a) Brazed joints. All joint surfaces to be brazed shall be cleaned. A flux shall be applied to all joint surfaces when required. Brazing filler metal conforming to AWS A5.8 or other approved material shall be applied and the joint shall be made by heating to the proper temperature. The joining of water supply piping shall be made by lead-free filler metals and fluxes. Lead-free shall mean a chemical composition equal to or less than 0.2% of lead.

SECTION 4. ILHR 84.40 (8) (a) and (d) are repealed and recreated to read:

ILHR 84.40 (8) (a) Brazed joints. All joint surfaces to be brazed shall be cleaned. A flux shall be applied to all joint surfaces when required. Brazing filler metal conforming to AWS A5.8 or other approved material shall be applied and the joint shall be made by heating to the proper temperature. The joining of water supply piping shall be made by lead-free filler metals and fluxes. Lead-free shall mean a chemical composition equal to or less than 0.2% of lead.

ILHR 84.40 (8) (d) Soldered joints. All joint surfaces to be soldered shall be cleaned. A flux shall be applied to all joint surfaces. Solder conforming to ASTM B32 or other approved material shall be applied. The joining of water supply piping shall be made with lead-free solders and fluxes. The joint shall be made by heating to the proper temperature. Lead-free shall mean a chemical composition equal to or less than 0.2% of lead.

SECTION 5. ILHR 84.40 (17) (b) and (c) are repealed and recreated to read:

ILHR 84.40 (17) (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.

ILHR 84.40 (17) (c) Copper or copper alloy pipe to galvanized steel pipe.  
Joints between copper or copper alloy pipe and galvanized steel pie 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.

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EFFECTIVE DATE

Pursuant to s. 227.026 (1) (b), Stats., these rules shall take effect on March 1, 1985.

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*The Wisconsin Department of Industry, Labor and Human Relations*

February 21, 1985

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FEB 22 1985

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Gary Poulson  
Assistant Revisor of Statutes  
for Administrative Rules  
411 West, State Capitol  
Madison, Wisconsin

Revisor of Statutes  
Bureau Douglas LaFollette  
Secretary of State  
Room 271, GEF-1  
201 East Washington Avenue  
Madison, Wisconsin

Dear Messrs. Poulson and LaFollette:

TRANSMITTAL OF RULE ADOPTION

CLEARINGHOUSE RULE NO. 84-242

RULE NO. ILHR 84.40 (5), (8) and (17)

RELATING TO: Prohibition of Lead-Based Solders and Fluxes in Plumbing Systems

Pursuant to section 227.023, Stats., agencies are required to file a certified copy of every rule adopted by the agency in the offices of the Secretary of State and the Revisor of Statutes.

At this time, the following material is being submitted to you.

1. Order of Adoption.
2. Rules Certificate Form.
3. Rules in Final Draft Form.

Pursuant to section 227.016 (6), Stats., a summary of the final regulatory flexibility analysis is also included.

Respectfully submitted,



Howard S. Bellman  
Secretary

cc: Agency Contact Person