

CR 91-54

# RULES CERTIFICATE

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

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Carol Skornicka, Secretary of the Department of Industry,  
Labor and Human Relation, and custodian of the official records of said department, do hereby certify the  
the annexed rule(s) relating to ozone-depleting refrigerants were duly  
(Subject)  
approved and adopted by this department on October 23, 1991.  
(Date)

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

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IN TESTIMONY WHEREOF, I have hereunto set  
my hand and affixed the official seal of the  
department at 1:00 p.m.  
in the city of Madison, this 23rd  
day of October A.D. 19 91.

Carol Skornicka  
Secretary

12-1-91

# ORDER OF ADOPTION

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s)

101.177

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 45 and Ind 69

(Number)

Mechanical Refrigeration and Fee Schedule

(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.

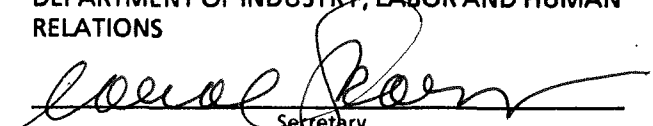
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3:50 pm.  
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Adopted at Madison, Wisconsin this

date: October 23, 1991

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN  
RELATIONS

  
Secretary



# RULES in FINAL DRAFT FORM

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**Rule:**           Chapters ILHR 45 and Ind 69          

**Relating to:**           Ozone-Depleting Refrigerants          

Clearinghouse Rule No.           91-54

The Wisconsin Department of Industry, Labor and Human Relations proposes an order to repeal ILHR 45.19 (4)(intro.) Note; to amend ILHR 45.06 (1)(a) and (b), 45.08 (2)(b) and 45.14; and to create ILHR 45.05 (6m), (40m), (50h), (50s) and (52m), 45.06 (1)(c), 45.08 (2)(c), 45.14 Note #3, 45.30 to 45.34, and Ind 69.04 (3), relating to ozone-depleting refrigerants.

\* \* \* \* \*

Analysis of Proposed Rules

Statutory Authority: Section 101.177, Stats.  
Statutes Interpreted: Section 101.177, Stats.

In April of 1990, the Wisconsin Legislature passed 1989 Wisconsin Act 284, relating to ozone-depleting refrigerants. Under that Act, the Legislature found that the release of chlorofluorocarbons commonly used as solvents and refrigerant fluids into the earth's atmosphere is reducing the stratospheric ozone concentration which in turn causes an increase in ultraviolet radiation at the earth's surface.

This increase in ultraviolet intensity at the earth's surface could lead to millions of additional human skin cancer and cataract cases, suppression of people's immune systems, a decrease in crop yields, and damage to marine phytoplankton. Chloroflouorocarbons also contribute to the global greenhouse effect by interfering with the escape of heat to space.

By passage of 1989 Wisconsin Act 284, the Legislature took a position that Wisconsin must take the lead in reducing emissions of ozone-depleting compounds by requiring their recovery and recycling wherever possible. Section 101.177, Stats., as created by 1989 Wisconsin Act 284, contains specific requirements relating to recovery and recycling of ozone-depleting refrigerants from refrigeration equipment and directs the Department to promulgate rules to administer those requirements.

In interpreting the intent of section 101.177, Stats., the proposed rules contain provisions relating to recycling and reclaiming of refrigerants, and include industry definitions of "recycle" and "reclaim". The proposed rules establish a standard of purity for reclaimed refrigerant and identify conditions which must be met before the reclaimed refrigerant can be sold.

The proposed rules require business establishments that service refrigeration equipment to register with the Department. Specific standards, such as use of approved recycling and recovery equipment, are specified for the Department's acceptance of the registration. Provisions relating to approval of the equipment are also included.

The proposed rules establish the qualifications for individuals who use the approved recovery and recycling equipment. Individuals will be qualified through the completion of approved training courses which include such areas as a presentation of environmental concerns and hands-on instruction. The proposed rules do not limit who can give the training courses, and an exemption from the training is allowed if equivalent training has been received. Qualification of individuals who use reclaiming equipment are also specified.

The law requires the Department to establish fees to cover the costs of administering the proposed rules. The proposed rules include fees that business establishments must pay for the registration for servicing of refrigeration equipment and for selling used refrigerant. Fees are also specified for the registration of the certificate of competency for the individuals doing the servicing and for the review of the training courses.

The proposed ozone-depleting refrigerant rules will be incorporated into the Department's current chapter ILHR 45, relating to mechanical refrigeration. The proposed rules include several revisions to existing requirements in chapter ILHR 45. Adopted national standards for refrigeration piping and tubing are updated to the current editions, and the requirements for initial inspection of piping and welded joints are revised.

The proposed rules have been developed with the assistance of the Ozone-Depleting Refrigerants Project Committee. The members of that citizen advisory committee are as follows:

<u>Name</u>	<u>Representing</u>
Richard Bogovich	Office of Senator Robert L. Cowles
Lisa Fox	Wisconsin Utilities Assoc.
Gary Hammen	Wisconsin State AFL-CIO
Wayne Hoff	Wisconsin Assn. of Meat Processors
Al Mlakar	Sheet Metal and Air Conditioning Contractor's Association
Lee Pearson	Wisconsin Grocer's Association
Bruce Siebert	Air Conditioning and Refrigeration Institute
Stephen Teale	Wisconsin Board of Vocational, Tech. and Adult Education
Ron Thomas	Madison Chapter, ASHRAE
Merry Fran Tryon	Dept. of Agriculture, Trade and Consumer Protection
David Vannieuwenhoven	Mechanical Contractors Assoc. of Wisconsin

\* \* \* \* \*

RA:3579h

SECTION 1. ILHR 45.05 (6m), (40m), (50h), (50s) and (52m) are created to read:

ILHR 45.05 (6m) "Business establishment" means any commercial or industrial location which is involved with the selling of used ozone-depleting refrigerant or the installing or servicing of refrigeration equipment that contains ozone-depleting refrigerant.

ILHR 45.05 (40m) "Ozone-depleting refrigerant" means a substance used in refrigeration that is one of the following:

(a) A chemical with an ozone depletion weight of 0.1 or more, as set out in 40 CFR part 82, appendix A.

(b) A mixture of chemicals with an ozone depletion weight of 0.1 or more, as determined by multiplying the ozone depletion weight of each component, as set out in 40 CFR part 82, appendix A, by the proportion of that component in the mixture and adding the products.

Note: Examples of ozone-depleting refrigerants include, but are not limited to, R-11, R-12, R-113, R-114, R-115, R-500 and R-502.

ILHR 45.05 (50h) "Reclaim" means to reprocess refrigerant to new product specifications, by means which may include distillation, and requiring chemical analysis to determine appropriate product specifications and compliance with ARI Standard 700.

ILHR 45.05 (50s) "Recycle" means to reduce contaminants in used refrigerant by oil separation and single or multiple passes through devices which reduce moisture, acidity and particulate matter, such as replaceable core filter-driers.

ILHR 45.05 (52m) "Refrigeration equipment" means mechanical vapor compression refrigeration equipment, except for a mobile air conditioner as defined in s. 100.45 (1)(b), Stats.

SECTION 2. ILHR 45.06 (1)(a) and (b) are amended to read:

ILHR 45.06 (1)(a) American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018, Refrigeration Piping, ANSI B31.5-~~1974~~ 1987 with B31.5a-~~1978~~ 1989 addenda.

(b) American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, Specification for Seamless Copper Water Tube, ASTM B88-~~80~~ 88a; and Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service, ASTM B280-~~80~~ 88.

SECTION 3. ILHR 45.06 (1)(c) is created to read:

ILHR 45.06 (1)(c) Air-Conditioning and Refrigeration Institute, 1501 Wilson Boulevard, Arlington, Virginia 22209; Specifications for Fluorocarbon Refrigerants, ARI Standard 700-88.

SECTION 4. ILHR 45.08 (2)(b) is amended to read:

ILHR 45.08 (2)(b) Refrigerant piping and welded joints to be erected on the premises for systems using a Group 2 or Group 3 refrigerant shall be inspected by the department ~~prior to being covered or enclosed~~ after the piping material is delivered to the job site and prior to the start of construction.

SECTION 5. ILHR 45.08 (2)(c) is created to read:

ILHR 45.08 (2)(c) The owner of the refrigerant piping system may request piping inspections in addition to the minimum inspections.

SECTION 5M. ILHR 45.09 and 45.10 are amended to read:

ILHR 45.09 IMPLEMENTATION OF RULES. Failure on the part of a superintendent, foreman, boss, or other person having control of any place of employment, business establishment, employe or operation, to carry out any rule prescribed in this chapter is violation of the rule by the employer.

ILHR 45.10 FEES. Fees for ~~the certificate of operation,~~ registrations, certificates, reviews, inspections and petitions for variance shall be submitted as specified in ch. Ind 69.

SECTION 6. ILHR 45.14 is amended to read:

ILHR 45.14 PENALTIES. Penalties for ~~violation~~ violations of this chapter shall be assessed in accordance with s. 101.024, or 101.177, Stats.

SECTION 7. ILHR 45.14 Note #3 is created to read:

ILHR 45.14 Note #3: Section 101.177 (5), Stats., indicates that any person who violates the installation, servicing or sale requirements relating to ozone-depleting refrigerants will be required to forfeit not less than \$50.00 nor more than \$1,000.00. Each act of installation, servicing or sale in violation of the rule constitutes a separate violation.

SECTION 8. ILHR 45.19 (4)(intro.) Note is repealed.

SECTION 9. ILHR 45.30 to 45.34 are created to read:

ILHR 45.30 SERVICING OF REFRIGERATION EQUIPMENT. (1) REGISTRATION REQUIRED. (a) After December 31, 1991, no business establishment may install or service a piece of refrigeration equipment that contains 5 pounds or more of ozone-depleting refrigerant unless the business establishment has registered with the department in accordance with this section.

(b) After December 31, 1992, no business establishment may install or service a refrigerator or freezer that contains less than 5 pounds of ozone-depleting refrigerant unless the business establishment has registered with the department in accordance with this section.

(c) Under this subsection, to install or service a refrigerator, freezer or piece of refrigeration equipment means to perform work that releases or may release ozone-depleting refrigerant.

(2) FORM AND CONTENT. The registration shall be on form SBD-8908 obtainable from the department and shall certify to the department that:

Note: See Appendix for a sample of form SBD-8908. Copies of this form may be obtained from the department at the Division of Safety and Buildings, Boiler Safety Section, P.O. Box 7969, Madison, Wisconsin 53707.

(a) The business establishment does not improperly release ozone-depleting refrigerant to the atmosphere;

Note: It is recognized that minute releases will occur during normal servicing operations. The intent of this rule is to cover releases other than those which cannot be contained by the best available techniques and equipment.

(b) The business establishment does not use ozone-depleting refrigerant to clean the exterior surfaces of refrigeration equipment;

(c) Whenever the business establishment removes ozone-depleting refrigerant from refrigeration equipment, the establishment transfers the refrigerant from the refrigeration equipment to storage containers using equipment that has been approved under s. ILHR 45.32 (1);

Note: Requirements for storage containers for pressures above 15 psig are contained in chs. ILHR 41-42 and in federal department of transportation regulations under 49 CFR 173.304.

(d) The individuals who use the equipment to transfer ozone-depleting refrigerant have, or are under the supervision of individuals who have, the qualifications specified under s. ILHR 45.34 (1). If the individual was an employe of the business establishment prior to [the effective date of this section...Revisor to insert date...], the business establishment may instead certify that the employe has received training equivalent to that specified under s. ILHR 45.34 (1);

(e) Whenever the business establishment recycles the ozone-depleting refrigerant, the establishment uses recycling equipment that has been approved under s. ILHR 45.32 (2); and

(f) The individuals who use the approved recycling equipment have the qualifications specified under s. ILHR 45.34 (2). If the individual was an employe of the business establishment prior to [the effective date of this section...Revisor to insert date...], the business establishment may instead certify that the employe has received training equivalent to that specified under s. ILHR 45.34 (2).

(3) TRAINING EXEMPTION CERTIFICATION. (a) A business establishment certifying that an employe has received training equivalent to that specified under s. ILHR 45.34 (1) or (2) shall provide the following information to the department within 90 days after [the effective date of this section...Revisor to insert date...] to be eligible for exemption from the training requirements:

1. The name of the employe;
2. The starting date of employment of the employe;
3. The date of the training course attended;



4. The facility where the training course was held;
5. A description of the training course; and
6. The type of transfer or recycling equipment used in the training course.

(b) The department shall review and make a determination on the request for training course exemption within 15 business days of receipt of the information required to complete the review. Upon acceptance of the request, the department shall issue a certificate of competency to the employe after payment of the certificate registration fee.

(4) EXPIRATION AND FEES. (a) Business establishment registrations accepted by the department under this section shall expire 3 years after the date of acceptance.

Note: Certificates of competency do not have an expiration.

(b) Fees for certificates, registrations and renewals under this section shall be submitted as specified in ch. Ind 69.

ILHR 45.31 SALE OF USED REFRIGERANT. (1) REGISTRATION REQUIRED. After December 31, 1991, no business establishment may sell used ozone-depleting refrigerant removed from refrigeration equipment for reuse unless the business establishment has registered with the department in accordance with this section.

(2) FORM AND CONTENT. The registration shall be on form SBD-8908 obtainable from the department and shall certify to the department that:

Note: See Appendix for a sample of form SBD-8908. Copies of this form may be obtained from the department at the Division of Safety and Buildings, Boiler Safety Section, P.O. Box 7969, Madison, Wisconsin 53707.

(a) The business establishment does not improperly release ozone-depleting refrigerant to the atmosphere;

Note: It is recognized that minute releases will occur during normal servicing operations. The intent of this rule is to cover releases other than those which cannot be contained by the best available techniques and equipment.

(b) The business establishment or another person reclaims the ozone-depleting refrigerant using reclaiming equipment that has been approved under s. ILHR 45.32 (3); and

(c) The individuals who use the approved equipment have the qualifications specified under s. ILHR 45.34 (3).

(3) EXEMPTION. Sub. (1) shall not apply to a business establishment that sells used ozone-depleting refrigerant removed from refrigeration equipment to another person for reclaiming by that other person, if the business establishment informs the other person that the refrigerant has not been reclaimed.

(4) EXPIRATION AND FEES. (a) Business establishment registrations accepted by the department under this section shall expire 3 years after the date of acceptance.

(b) Fees for registration and renewal under this section shall be submitted as specified in ch. Ind 69.

ILHR 45.32 APPROVED EQUIPMENT. (1) TRANSFER EQUIPMENT. The department shall approve any transfer equipment which is not part of recycling equipment if an approved nationally recognized testing laboratory has certified the transfer equipment. Noncertified transfer equipment that is not on a list of departmentally approved equipment or that is purchased prior to the initiation of an applicable certification program by a nationally recognized testing laboratory may be used with departmental approval, provided the equipment is used in accordance with the manufacturer's instructions.

(2) RECYCLING EQUIPMENT. The department shall approve any refrigerant recycling equipment if an approved nationally recognized testing laboratory has certified the equipment. Noncertified recycling equipment that is not on a list of departmentally approved equipment or that is purchased prior to the initiation of an applicable certification program by a nationally recognized testing laboratory may be used with departmental approval, provided the equipment is used in accordance with the manufacturer's instructions.

(3) RECLAIMING EQUIPMENT. The department shall approve any refrigerant reclaiming equipment if the equipment reprocesses the used refrigerant to the purity standards specified in ARI Standard 700.

ILHR 45.33 REFRIGERANT PURITY. Ozone-depleting refrigerant that has been removed from refrigeration equipment and that will be transferred to a different owner's refrigeration equipment shall comply with ARI Standard 700. Documentation certifying product specifications in accordance with ARI Standard 700 shall accompany the reclaimed refrigerant.

ILHR 45.34 QUALIFICATIONS OF EQUIPMENT USERS. (1) TRANSFER EQUIPMENT. Individuals who use equipment to transfer ozone-depleting refrigerant from refrigeration equipment to storage containers shall be qualified, or shall be under the supervision of individuals who are qualified, through the completion of an approved training course that provides instruction which includes:

(a) A presentation of the environmental concerns, including the destruction of stratospheric ozone and the global greenhouse effect, relating to the emission of ozone-depleting refrigerant;

(b) A presentation of the applicable state and federal regulations regulating the handling of ozone-depleting refrigerant from refrigeration equipment;

(c) Instruction on necessary safety precautions during the transfer of ozone-depleting refrigerant;

(d) A presentation of the industry standards for transfer equipment;

(e) Hands-on instruction for each person on the use of approved transfer equipment;

- (f) An evaluation of the individuals attending the course; and
- (g) A certificate of competency which identifies the person who has successfully completed the course.

(2) RECYCLING EQUIPMENT. Individuals who use approved refrigerant recycling equipment shall be qualified through the completion of an approved training course that provides instruction which includes:

- (a) A presentation of the environmental concerns, including the destruction of stratospheric ozone and the global greenhouse effect, relating to the emission of ozone-depleting refrigerant;

- (b) A presentation of the applicable state and federal regulations regulating the handling of ozone-depleting refrigerant from refrigeration equipment;

- (c) Instructions on necessary safety precautions during the recycling of ozone-depleting refrigerant;

- (d) A presentation of the industry standards for recycling equipment;

- (e) Hands-on instruction for each person on the use of approved refrigerant recycling equipment;

- (f) An evaluation of the individuals attending the course; and

- (g) A certificate of competency which identifies the person who has successfully completed the course.

(3) RECLAIMING EQUIPMENT. Individuals who use approved refrigerant reclaiming equipment shall be qualified through a knowledge of:

- (a) The ARI Standard 700 for refrigerant purity; and

- (b) The federal Environmental Protection Agency regulations relating to the chemical by-products of reclaiming refrigerants.

(4) APPROVAL OF TRAINING COURSES. Training courses to be presented for compliance with subs. (1) and (2) shall be approved by the department prior to presentation. The department shall review and make a determination on an application for training course approval within 15 business days of receipt of the information required to complete the review. The fee for reviewing and approval of the training courses shall be as specified in ch. Ind 69.

Note: Requests for training course approval and for copies of the certificate of competency (form SBD-8909) may be submitted to the Safety and Buildings Division, Boiler Safety Section, P. O. Box 7969, Madison, WI 53707.

(5) NAMES OF CERTIFICATE HOLDERS. The person or organization presenting the approved training course shall provide the department with the names of the persons who have successfully completed the course.

(6) FEES. Fees for registration of the certificate of competency shall be submitted as specified in ch. Ind 69.

SECTION 10. Ind 69.04 (3) is created to read:

Ind 69.04 (3) OZONE-DEPLETING REFRIGERANT REGISTRATION. (a) Business establishments desiring to be registered for servicing of refrigeration equipment under s. ILHR 45.30 or for selling used refrigerant under s. ILHR 45.31 shall submit a fee of \$100.00 with each registration form.

(b) The fee for the registration of the certificate of competency for the use of refrigerant transfer or recycling equipment shall be \$15.00.

(c) The fee for reviewing and approval of ozone-depleting refrigerant training courses under s. ILHR 45.34 (4) shall be based on a hourly rate of \$40.00 per hour.

SECTION 11. A 45.30 (2) and 45.31 (2) is created to read:

A 45.30 (2) and 45.31 (2) FORMS. The following form (SBD-8908) is referred to in ss. ILHR 45.30 (2) and 45.31 (2). Copies are available from the Division of Safety and Buildings, Boiler Safety Section, P.O. Box 7969, Madison, Wisconsin 53707.

## REFRIGERANT HANDLING CERTIFICATION (OZONE-DEPLETING)

Business Name		Business Telephone (include area code) (     )
Business Address		
City	State	Zip Code

On behalf of the above named business, (print company official's name) \_\_\_\_\_, certifies to the Department of Industry, Labor and Human Relations that the general requirements outlined below and specified in Chapter ILHR 45 will be followed to reduce the quantity of ozone-depleting compounds which may be released into the atmosphere in the process of recovery and/or recycling of refrigerants.

### SERVICING OF REFRIGERATION EQUIPMENT

It is certified:

1. That the business establishment does not improperly release ozone-depleting refrigerant to the atmosphere;
2. That the business establishment does not use ozone-depleting refrigerant to clean the exterior surfaces of refrigeration equipment;
3. That the business establishment transfers the ozone-depleting refrigerant from refrigeration equipment to storage containers using equipment that is approved by the Department whenever the business establishment removes ozone-depleting refrigerant from refrigeration equipment;
4. That the individuals who use the equipment to transfer ozone-depleting refrigerant have, or are under the supervision of individuals who have, the qualifications established by the Department;
5. Whenever the business establishment recycles the ozone-depleting refrigerant, the establishment uses recycling equipment approved by the Department; and
6. The individuals who use the approved recycling equipment have the qualifications established by the Department.

\_\_\_\_\_  
Company Official's Signature

\_\_\_\_\_  
Date Signed

### SALE OF RECLAIMED REFRIGERANT

It is certified:

1. That the business establishment does not improperly release ozone-depleting refrigerant to the atmosphere;
2. That the business establishment or another person has reclaimed the ozone-depleting refrigerant to be sold using equipment approved by the Department; and
3. That the individuals who use the approved equipment have the qualifications established by the Department.

\_\_\_\_\_  
Company Official's Signature

\_\_\_\_\_  
Date Signed

(End)

\*\*\*\*\*

EFFECTIVE DATE

Pursuant to s. 227.22 (2)(intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.

\*\*\*\*\*

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Tommy G. Thompson  
Governor  
Carol Skornicka  
Secretary



Mailing Address:  
201 E. Washington Avenue  
Post Office Box 7946  
Madison, WI 53707-7946  
Telephone (608) 266-7552

## State of Wisconsin Department of Industry, Labor and Human Relations

October 23, 1991

Gary Poulson  
Assistant Revisor of Statutes  
2nd Floor  
119 Martin Luther King Blvd.  
Madison, Wisconsin 53703

Douglas LaFollette  
Secretary of State  
10th Floor  
30 West Mifflin Street  
Madison, Wisconsin 53703

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Dear Messrs. Poulson and LaFollette:

### TRANSMITTAL OF RULE ADOPTION

CLEARINGHOUSE RULE NO. 91-54

RULE NO. Chapters ILHR 45 and Ind 69

RELATING TO: Ozone-Depleting Refrigerants

Pursuant to section 227.20, Stats., agencies are required to file a certified copy of every rule adopted by the agency with 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 227.114, Stats., a summary of the final regulatory flexibility analysis is included for permanent rules. A fiscal estimate and fiscal estimate worksheet is included with an emergency rule.

Respectfully submitted,

Carol Skornicka  
Secretary