



WISCONSIN LEGISLATIVE COUNCIL RULES CLEARINGHOUSE

Ronald Sklansky
Clearinghouse Director

Richard Sweet
Clearinghouse Assistant Director

Terry C. Anderson
Legislative Council Director

Laura D. Rose
Legislative Council Deputy Director

CLEARINGHOUSE REPORT TO AGENCY

[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

CLEARINGHOUSE RULE 01-135

AN ORDER to renumber Comm 64.0403 (3), 64.0604 and 64.0605 (2); to amend Comm 64.0309 (1); 64.0403 (5) (a), (b) 1. a. and (c) 1., 64.0403 Table 64.0403 and 64.0605 (1); to repeal and recreate Comm 64.0401 (4) (a) (intro.); and to create Comm 64.0300, 64.0401 (4) (a) 4. and (b) 5., 64.0403 (3) (a), (4) (a) 6. and (5) (d), 64.0604 (1), 64.0605 (2) and (3) and 64.0900, relating to heating, ventilating and air conditioning and to the Wisconsin changes, additions, substitutions or omissions to the International Mechanical Code (IMC).

Submitted by **DEPARTMENT OF COMMERCE**

11-26-01 RECEIVED BY LEGISLATIVE COUNCIL.

12-19-01 REPORT SENT TO AGENCY.

RS:NZ:jal;ksm

LEGISLATIVE COUNCIL RULES CLEARINGHOUSE REPORT

This rule has been reviewed by the Rules Clearinghouse. Based on that review, comments are reported as noted below:

1. STATUTORY AUTHORITY [s. 227.15 (2) (a)]

Comment Attached YES NO

2. FORM, STYLE AND PLACEMENT IN ADMINISTRATIVE CODE [s. 227.15 (2) (c)]

Comment Attached YES NO

3. CONFLICT WITH OR DUPLICATION OF EXISTING RULES [s. 227.15 (2) (d)]

Comment Attached YES NO

4. ADEQUACY OF REFERENCES TO RELATED STATUTES, RULES AND FORMS
[s. 227.15 (2) (e)]

Comment Attached YES NO

5. CLARITY, GRAMMAR, PUNCTUATION AND USE OF PLAIN LANGUAGE [s. 227.15 (2) (f)]

Comment Attached YES NO

6. POTENTIAL CONFLICTS WITH, AND COMPARABILITY TO, RELATED FEDERAL
REGULATIONS [s. 227.15 (2) (g)]

Comment Attached YES NO

7. COMPLIANCE WITH PERMIT ACTION DEADLINE REQUIREMENTS [s. 227.15 (2) (h)]

Comment Attached YES NO



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CLEARINGHOUSE RULE 01-135

Comments

[NOTE: All citations to "Manual" in the comments below are to the Administrative Rules Procedures Manual, prepared by the Revisor of Statutes Bureau and the Legislative Council Staff, dated September 1998.]

2. Form, Style and Placement in Administrative Code

- a. The rule should explain that it is modifying a rule that has not yet taken effect.
- b. In s. Comm 64.0403 (3) (a) 2., the phrase "shall be permitted to" should be replaced by the word "may."
- c. In s. Comm 64.0604 (1) (a) 2., the phrase "this requirement shall not" should be replaced by the phrase "the requirement in subd. 1. does not."

5. Clarity, Grammar, Punctuation and Use of Plain Language

- a. In s. Comm 64.0300, the language is unclear; "In operating of hospitals . . ." should be changed to "In the operation of hospitals . . ." or "In operating hospitals . . ."
- b. In s. Comm 64.0300, "centers" should be changed to "center."
- c. In s. Comm 64.0401 (4) (a) 4. b., ". . . a outdoor" should be changed to ". . . an outdoor."
- d. In s. Comm 64.0401 (4) (a) 4. d., when is an area "contaminated"?

e. In s. Comm 64.0604 (1) (a) 1., "... hospitals and ambulatory ..." should be changed to "... in hospitals and ambulatory"

f. In s. Comm 64.0604 (1) (b), the sentence reads as if duct lining shall not be installed as necessary to prevent moisture accumulation. Is that the intent?

g. In s. Comm 64.0605 (1), the word "as" should be deleted.



State of Wisconsin \ Department of Commerce

HEARING DRAFT of PROPOSED RULES

Rule No.: Chapter Comm 64

Relating to: Heating, Ventilating, and Air Conditioning

The Wisconsin Department of Commerce proposes an order to: renumber Comm 64.0403 (3) as 64.0403 (3)(b); Comm 64.0604 as 64.0604 (2); and Comm 64.0605 (2) as 64.0605 (4); amend Comm 64.0309 (1); 64.0403 (5)(a), (b)1.a., and (c)1.; 64.0403 Table 64.0403; and 64.0605(1); repeal and recreate Comm 64.0401(4)(a)(intro.); and create Comm 64.0300; 64.0401 (4)(a) 4. and (4)(b) 5.; 64.0403(3)(a) and (4)(a)6.; 64.0403(5)(d); 64.0604(1); 64.0605(2) and (3); and 64.0900, relating to heating, ventilating and air conditioning; the Wisconsin changes, additions, substitutions or omissions to the International Mechanical Code® (IMC).

ANALYSIS OF PROPOSED RULES

Statutory Authority and Statutes Interpreted:

Statutory authority: ss. 101.02 and 101.025, Stats.
Statutes interpreted: ss. 101.02 and 101.025, Stats.

Under s. 101.025, Stats., the department authority includes requirements for the intake of outside air for ventilation in public buildings or places of employment; the establishment of minimum quantities of outside air that must be supplied based upon the type of occupancy, the number of occupants, areas with toxic or unusual contaminants; and other pertinent criteria determined by the department. The department shall set these standards for mandatory intake of outside air and provisions where these standards may be waived.

The proposed revisions to ch. Comm 64, relating to heating, ventilating and air conditioning and the Wisconsin changes, additions or omission to the International Mechanical Code® (IMC), are primarily related to air-handling systems, particularly ventilation and filtration requirements, located in specific hospital and healthcare occupancies in conformance with specifications contained in the Guidelines for Design and Construction of Hospitals and Health Care Facilities published by the American Institute of Architects (AIA).

Section Comm 64.0309 is proposed to clarify that minimum temperatures are required to be maintained during occupancy. Section Comm 64.0401 recognizes that engineered systems are also an option when addressing the location of outdoor air intakes. One change to Table 64.0403 prohibits the use of natural ventilation for make up air in health care facilities. Section Comm 64.0604 is proposed to provide requirements in addition to IMC section 604 and 604.8 limiting the use of certain duct linings so as to mitigate fungal and microbial growth. Section Comm 64.0605 (1) clarifies the specific sections in the AIA Guidelines where filtration is stipulated. Section Comm 64.0900 is proposed to be created to clarify the use of final filters in duct humidifiers.

The proposed rule revisions were developed with the assistance of the HVAC Advisory Code Council. The Council consists of the following individuals: Timothy J. Gasperetti, representing the Building Owners and Managers Association of Milwaukee; Kevin Lichtfuss, representing the Wisconsin Association of Consulting Engineers; Michael Mamayek, representing the Plumbing and Mechanical Contractors of SE Wisconsin; Ken Pavlik, representing the Wisconsin Builders Association; Richard J. Pearson, representing the Wisconsin Chapter ASHRAE; Robert Pertzborn, representing the Wisconsin Association of Plumbing, Heating and Cooling Contractors, Inc.; David Stockland, representing the Associated Builders and Contractors of Wisconsin Ltd; Harry A. Sulzer, representing the League of Wisconsin Municipalities; and Robert D. Wiedenhofer, representing the Sheet Metal and Air Conditioning Contractors Association of Wisconsin, Inc.

SECTION 1. Comm 64.0300 is created to read:

Comm 64.0300 Specific criteria for operating rooms and autopsy rooms. This is a department rule in addition to the requirements in IMC chapter 3: In operating of hospitals and ambulatory surgery centers rooms and autopsy rooms, the bottoms of ventilation supply and return openings shall be at least 3 inches above the floor.

?
eliminate

SECTION 2. Comm 64.0309 (1) is amended to read:

Comm 64.0309 (1) HEATING SYSTEM DESIGN. Except as provided in subds. (2) or (3), the heating system shall be designed and operated to maintain a temperature of not less than that shown in Table 64.0403 at 3 feet above the floor within the occupied space during occupied periods.

SECTION 3. Comm 64.0401 (4) (a) (intro.) is repealed and recreated to read:

Comm 64.0401 (4) (a) Substitute the following wording for the requirements in IMC section 401.5.1:

Does not exist

SECTION 4. Comm 64.0401 (4) (a) 4. is created to read:

Comm 64.0401 (4) (a) 4. For health care facilities all of the following shall apply:

- a. Except as provided under subpar. b., outdoor air intakes shall be located at least 25 feet from exhaust outlets of ventilating systems, combustion equipment stacks, medical-surgical vacuum systems, plumbing vents or areas that may collect vehicular exhaust or other noxious fumes.
- b. Plumbing and vacuum vents that terminate at a level above the top of the air intake may be located as close as 10 feet to a outdoor air intake.
- c. The bottom of outdoor air intakes serving central systems shall be located at least 6 feet above ground level or, when installed above the roof, at least 3 feet above roof level.
- d. Exhaust outlets from areas that may be contaminated shall be located above roof level and arranged to minimize recirculation of exhaust air into the building.

X

SECTION 5. Comm 64.0401 (4) (b) 5. is created to read:

Comm 64.0401 (4) (b) 5. Where it can be demonstrated that an engineered system design will

What does he mean

prevent the maximum concentration of contaminants brought in through the outside air intake from exceeding the maximum contaminant concentration obtainable by providing the separation distances in accordance with sub. (4) (a), the outdoor air intakes may be located in accordance with such engineered system design.

SECTION 6. Comm 64.0403 (3) is renumbered as Comm 64.0403 (3) (b).

SECTION 7. Comm 64.0403 (3) (a) is created to read:

Comm 64.0403 (3) (a) These are department rules in addition to the requirements in IMC section 403.2:

1. In hospitals and ambulatory surgery centers, air supply for operating rooms and delivery rooms that are designed for cesarean sections shall be provided from ceiling outlets located near the center of the work area. Return-air inlets shall be located near the floor level. Each operating room and delivery room designed for cesarean-section deliveries shall have at least 2 return-air inlets located as remotely from each other as practical.

2. In hospitals and ambulatory surgery centers, air supply outlets for rooms used for invasive procedures shall be located at or near the ceiling. Return or exhaust air inlets shall be located near the floor level. Exhaust grills for anesthesia evacuation and other special applications (shall be permitted to) be installed in the ceiling.

SECTION 8. Comm 64.0403 (4) (a) 6. is created to read:

Comm 64.0403 (4) (a) 6. Recirculation and flow of air in health care facilities shall comply with the requirements in Table 2 or Table 6, as applicable, of AIA Guidelines for Design and Construction of Hospitals and Health Care Facilities.

SECTION 9. Comm 64.0403 (5) (a), (b) 1. a. and (c) 1. are amended to read:

Comm 64.0403 (5) COMMON VENTILATION SYSTEM. These are department alternatives to the requirements in IMC section 403.3.2:

(5) (a) *General.* ~~Each~~ Except as specified in par. (d), each room served by a common mechanical ventilation system shall be provided with the minimum outdoor airflow rate determined individually for each room, or the minimum amount of outside air may be supplied to the system if a minimum air change rate for each room is either provided in accordance with par. (b) or waived in accordance with par. (c).

(b) ~~Minimum air change~~ 1. 'Application.' a. ~~Required~~ The required air change shall be provided while people are present.

(c) ~~Air change requirement waived~~. The air change requirement for 6 air changes per hour may be omitted in any of the following applications:

(c)1. Spot Buildings or rooms utilizing spot heating as the only source of heat.

SECTION 10. Comm 64.0403 (5) (d) is created to read:

Comm 64.0403 (5) (d) Air change rates in health care facilities. Air change rates in health care facilities shall comply with the requirements in Table 2 or Table 6, as applicable, of AIA Guidelines for Design and Construction of Hospitals and Health Care Facilities.

SECTION 11. Comm 64.0403 (6) Table 64.0403 (partial) is amended to read:

Does this work

Table 64.0403 (partial)
Required Minimum Inside Temperature and Outdoor Ventilation Air

| Occupancy Classification ⁱ | Ventilation Requirements Basis of Capacity | | | | |
|---------------------------------------|---|--|-----------------------------|---|---|
| | Minimum Inside Temperature (degrees F) | Estimated Maximum Occupant Load (persons per 1,000 sq. ft.) ^a | Natural Ventilation Allowed | Exhaust ^e (cfm/net sq. ft. floor area) | Air Change Rate ^k (minimum air change per hour with A/C) |
| <u>Health care facilities</u> | footnote m | footnote m | footnote m no | footnote m | footnote m |
| Hospitals | | | | | |
| Nursing homes | | | | | |
| Ambulatory surgery centers | | | | | |

SECTION 12. Comm 64.0604 is renumbered ~~as~~ Comm 64.0604 (2).

SECTION 13. Comm 64.0604 (1) is created to read:

Comm 64.0604 (1) GENERAL. These are department rules in addition to the requirements in IMC sections 604 and 604.8:

(a) 1. Except as provided under subd. 2., ^{IN} hospitals and ambulatory surgery centers, duct linings exposed to air movement shall not be used in ducts serving operating rooms, delivery rooms, labor, delivery and recovery rooms, nurseries, protective environment rooms and critical care units.

2. In hospitals and ambulatory surgery centers, ^{the} ~~this~~ requirement ^{in subd. 1 does} shall not apply to mixing boxes and acoustical traps that have special coverings over such lining to mitigate fungal and microbial growth.

(b) In hospitals and ambulatory surgery centers, duct lining shall not be installed within 15 feet downstream of humidifiers or as necessary to prevent moisture accumulation in the lining.
Reads as if duct lining shall not be installed as necessary to prevent moisture

SECTION 14. Comm 64.0605 (1) is amended to read:

Comm 64.0605 (1) ~~Hospitals~~ Central air handling systems in hospitals, nursing homes and ambulatory surgery centers shall comply with the applicable filtration requirements in Tables 2 and 6, part III as specified in section 7.31.D8, 8.31.D5, 9.31.D8 or 11.31.D4 of the AIA Guidelines for Design and Construction of Hospitals and Health Care Facilities.

SECTION 15. Comm 64.0605 (2) is renumbered as Comm 64.0605 (4).

SECTION 16. Comm 64.0605 (2) and (3) are created to read:

Comm 64.0605 (2) Non-central air handling systems in hospitals, nursing homes and ambulatory surgery centers shall be equipped with permanent cleanable or replaceable filters with a minimum efficiency of 68 percent weight arrestance.

(3) In hospitals and ambulatory surgery centers, non-central air handling systems shall be used as recirculating units only. All outdoor air requirements shall be met by a separate central air handling system with the filtration as provided in sub. (1).

SECTION 17. Comm 64.0900 is created to read:

Comm 64.0900 Specific criteria for duct humidifiers. These are department rules in addition to the requirements in IMC chapter 9:

(1) For duct humidifiers located upstream of final filters in a hospital or ambulatory surgery center all of the following shall apply:

(a) The duct humidifier shall be located at least 15 feet upstream of the final filters.

(b) The ductwork with duct-mounted humidifiers shall have a means of water removal.

(c) An adjustable high-limit humidistat shall be located downstream of the humidifier to reduce the potential of condensation inside the duct.

(d) All duct takeoffs shall be sufficiently downstream of the humidifier to ensure complete moisture absorption.

(2) For all other humidifiers located in hospitals or ambulatory surgery centers all of the following shall apply:

(a) Steam humidifiers shall be used.

(b) Reservoir-type water spray or evaporative pan humidifiers shall not be used.

EFFECTIVE DATE

Pursuant to s. 227.22 (2) (b), Stats., these rules shall take effect on July 1, 2002 after publication in the Wisconsin Administrative Register.

(end)



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(608) 266-1018
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Scott McCallum, Governor
Philip Edw. Albert, Secretary

2/6/2000

Donald J. Schneider
Senate Chief Clerk
Room 501
119 Martin Luther King Blvd
Madison, Wisconsin 53703

Assembly Chief Clerk
Room 402
1 East Main Street
Madison, Wisconsin 53703

Dear Chief Clerks:

**TRANSMITTAL IN FINAL DRAFT FORM OF ADMINISTRATIVE
RULES AND REPORT**

CLEARINGHOUSE RULE NO.: 01-135

RULE NO.: Chapter Comm 64

RELATING TO: Heating, Ventilating and Air Conditioning

Pursuant to section 227.19, Stats., agencies are required to submit, in triplicate, copies of the proposed administrative rules in final draft form together with a rule report and an analysis. The recommendations received from the Legislative Council are also to be submitted.

At this time, this material, together with cover letters to the President of the Senate and the Speaker of the Assembly, is being transmitted for referral to the standing committees for legislative review.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Philip Edw. Albert', written in a cursive style.

Philip Edw. Albert
Secretary



P.O. Box 7970
Madison, Wisconsin 53707
(608) 266-1018
TDD#: (608) 264-8777
www.commerce.state.wi.us

Scott McCallum, Governor
Philip Edw. Albert, Secretary

2/6/2002

Senator Fred Risser
President of the Senate
Room 220 South, State Capitol
Madison, Wisconsin 53702

Representative Scott Jensen
Speaker of the Assembly
Room 211 West, State Capitol
Madison, Wisconsin 53702

Dear Senator Risser and Representative Jensen:

NOTICE OF ADMINISTRATIVE RULES IN FINAL DRAFT FORM

CLEARINGHOUSE RULE NO.: 01-135

RULE NO.: Chapter Comm 64

RELATING TO: Heating, Ventilating and Air Conditioning

Section 227.19, Stats., requires agencies to submit proposed rules in final draft form to the presiding officer of each house for referral to the appropriate legislative standing committees.

The following information, as required by law, is being submitted to you.

1. Rules in final draft form (in triplicate).
2. Report consisting of:
 - a) Rule Report.
 - b) Public Hearing Attendance Record.
 - c) Public Hearing Comment and Agency Response Form.
 - d) Legislative Council Rules Clearinghouse Report.
 - e) Response to Legislative Council Rules Clearinghouse Report.
 - f) Fiscal Estimate.
 - g) Final Regulatory Flexibility Analysis.

If you have any questions regarding this matter, please do not hesitate to contact us.

Respectfully submitted,

Philip Edw. Albert
Secretary

FINAL REGULATORY FLEXIBILITY ANALYSIS

Department of Commerce

CLEARINGHOUSE RULE NO.: 01-135

RULE NO.: Chapter Comm 64

RELATING TO: Heating, Ventilating and Air Conditioning

Final regulatory flexibility analysis not required. (Statement of determination required.)

No comments were received or testimony given at the hearing.

1. Reason for including or failing to include the following methods for reducing impact of the rule on small businesses: Less stringent compliance or reporting requirements; less stringent schedules or deadlines for compliance or reporting requirements; simplification of compliance or reporting requirements; establishment of performance standards to replace design or operational standards; exemption from any or all requirements.

The rule allows alternate methods based upon sound engineering practices.

2. Issues raised by small businesses during hearings, changes in proposed rules as a result of comments by small businesses and reasons for rejecting any alternatives suggested by small businesses.

No comments were received at the hearing.

3. Nature and estimated cost of preparation of any reports by small businesses.

No additional paperwork is required to comply with these rules.

4. Nature and estimated cost of other measures and investments required of small businesses.

The performance requirements for equipment and installations in these occupancies are currently reflected in present practice.

5. Additional cost to agency of administering or enforcing a rule which includes any of the methods in 1. for reducing impact on small businesses.

None enumerated.

6. Impact on public health, safety and welfare caused by including any of the methods in 1. for reducing impact on small businesses.

The performance requirements for equipment and installations in these occupancies are currently reflected in present practice.

FISCAL ESTIMATE WORKSHEET
Detailed Estimate of Annual Fiscal Effect
DOA-2047(R06/99)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No. Amendment No.
Chs. Comm 64

Subject Heating, Ventilating and Air Conditioning

I. One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

| II. Annualized Costs: | Annualized Fiscal impact on State funds from: | |
|---|---|------------------------|
| | Increased Costs | Decreased Costs |
| A. State Costs By Category | \$ 0 | \$ -0 |
| State Operations - Salaries and Fringes | | |
| (FTE Position Changes) | (0 FTE) | (- 0 FTE) |
| State Operations - Other Costs | 0 | -0 |
| Local Assistance | 0 | -0 |
| Aids to Individuals or Organizations | 0 | -0 |
| TOTAL State Costs By Category | \$ 0 | \$ -0 |
| B. State Costs By Source of Funds | Increased Costs | Decreased Costs |
| GPR | \$ 0 | \$ -0 |
| FED | 0 | -0 |
| PRO/PRS | 0 | -0 |
| SEG/SEG-S | 0 | -0 |
| III. State Revenues- Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.) | Increased Rev. | Decreased Rev. |
| GPR Taxes | \$ 0 | \$ -0 |
| GPR Earned | 0 | -0 |
| FED | 0 | -0 |
| PRO/PRS | 0 | -0 |
| SEG/SEG-S | 0 | -0 |
| TOTAL State Revenues | \$ 0 | \$ -0 |

NET ANNUALIZED FISCAL IMPACT

| | STATE | LOCAL |
|------------------------|-------|-------|
| NET CHANGE IN COSTS | \$ 0 | \$ 0 |
| NET CHANGE IN REVENUES | \$ 0 | \$ 0 |

Agency/Prepared by: (Name & Phone No.)

Commerce/Jean M. MacCubbin
608-266-0955

Authorized Signature/Telephone No.



Date

11/26/99

FISCAL ESTIMATE
DOA-2048 (R06/99)

ORIGINAL
 CORRECTED

UPDATED
 SUPPLEMENTAL

LRB or Bill No./Adm. Rule No.
Chs. Comm 64
Amendment No. if Applicable

Subject Heating, Ventilating and Air Conditioning

Fiscal Effect

State: No State Fiscal Effect

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation

- Increase Existing Appropriation
- Decrease Existing Appropriation
- Create New Appropriation
- Increase Existing Revenues
- Decrease Existing Revenues

- Increase Costs - May be Possible to Absorb Within Agency's Budget Yes No
- Decrease Costs

Local: No local government costs

- 1. Increase Costs
 Permissive Mandatory
- 2. Decrease Costs
 Permissive Mandatory

- 3. Increase Revenues
 Permissive Mandatory
- 4. Decrease Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:

- Towns Villages Cities
- Counties Others _____
- School Districts WTCS Districts

Fund Sources Affected

- GPR FED PRO PRS SEG SEG-S

Affected Ch. 20 Appropriations

Assumptions Used in Arriving at Fiscal Estimate

The department currently administers a code on this topic.

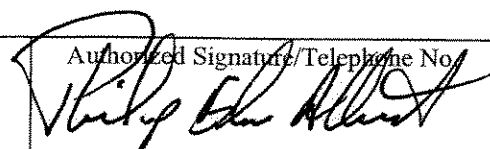
There are no new administrative activities required to implement this rule revision.

There are no additional costs or revenues associated with implementing this rule revision.

Long-Range Fiscal Implications

Agency/Prepared by: (Name & Phone No.)
Commerce/ Jean M. MacCubbin
608-266-0955

Authorized Signature/Telephone No.



Date

11/26/97

**DEPARTMENT OF COMMERCE
SUMMARY OF PUBLIC HEARING COMMENTS AND AGENCY RESPONSE**

| Clearinghouse Rule Number: 01-135 | | Hearing Location: Madison | |
|-------------------------------------|--|---------------------------|-----------------|
| Rule Number: ch. Comm 64 | | Hearing Date: 1/16/02 | |
| Relating to: HVAC | | | |
| Comments: Oral or Exhibit No. | Presenter, Group Represented, City and State | Comments/Recommendations | Agency Response |
| | | NONE RECEIVED. | |

RESPONSE TO LEGISLATIVE COUNCIL CLEARINGHOUSE REPORT

Department of Commerce

CLEARINGHOUSE RULE NO.: 01-135

RULE NO.: Chapter Comm 64

RELATING TO: Heating, Ventilating and Air Conditioning

Agency contact person for substantive questions.

Name: Berni Mattsson

Title: Program Manager, Energy and HVAC

Telephone No. 608-266-2725

Legislative Council report recommendations accepted in whole.

Yes

No

1. Review of statutory authority [s. 227.15(2)(a)]
 - a. Accepted
2. Review of rules for form, style and placement in administrative code [s. 227.15(2)(c)]
 - a. Accepted
3. Review rules for conflict with or duplication of existing rules [s. 227.15(2)(d)]
 - a. Accepted
4. Review rules for adequate references to related statutes, rules and forms [s. 227.15(2)(e)]
 - a. Accepted

(Continued on next page)

5. Review language of rules for clarity, grammar, punctuation and plainness [s. 227.15(2)(f)]

b. Accepted in part

d. Comments:

5.a. In s. Comm 64.0300, the word "rooms" after "In operating..." was inadvertently omitted from a previous draft. This omission has been corrected, therefore the comment no longer applies.

5d. The term "contaminated" as used in this context, is clarified elsewhere in adopted sections of IMC sections 403.2.1 and 502.1; therefore, the text as written needs no further clarification.

5f. The intent of s. Comm 64.0604 (1)(b) is further clarified in two referenced standards within the IMC—NFPA 90A and 101 as well as in DHFS administrative rule requirements.

6. Review rules for potential conflicts with, and comparability to, related federal regulations [s. 227.15(2)(g)]

a. Accepted

7. Review rules for permit action deadline [s. 227.15(2)(h)]

a. Accepted



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Scott McCallum, Governor
Philip Edw. Albert, Secretary

2/6/2002

Gary Poulson
Assistant Revisor of Statutes
Suite 800
131 West Wilson Street
Madison, Wisconsin 53703-3233

Dear Mr. Poulson:

NOTIFICATION OF RULE REFERRAL

This letter is to notify you that pursuant to section 227.19, Stats., the Department of Commerce has referred:

CLEARINGHOUSE RULE NO.: CR 01-135

RULE NO.: Chapter Comm 64

RELATING TO: Heating, Ventilating and Air Conditioning

to the presiding officers of the Senate and Assembly of the Legislature for referral to the appropriate standing committees for Legislative review.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Philip Edw. Albert', written over a horizontal line.

Philip Edw. Albert
Secretary



State of Wisconsin \ Department of Commerce

RULES in FINAL DRAFT FORM

Rule No.: Chapter Comm 64

Relating to: Heating, Ventilating and Air Conditioning

Clearinghouse Rule No.: 01-135

The Wisconsin Department of Commerce proposes an order to: renumber Comm 64.0403 (3) as 64.0403 (3)(b); Comm 64.0604 (1) as 64.0604 (3); and Comm 64.0605 (2) as 64.0605 (4); amend Comm 64.0309 (1); 64.0403 (5)(a), (b)1.a., and (c)1.; 64.0403 Table 64.0403; and 64.0605(1); repeal and recreate Comm 64.0401(4)(a)(intro.); and create Comm 64.0300; 64.0401 (4)(a) 4. and (4)(b) 5.; 64.0403(3)(a) and (4)(a)6.; 64.0403(5)(d); 64.0604(1); 64.0605(2) and (3); and 64.0900, relating to heating, ventilating and air conditioning and the Wisconsin changes, additions, substitutions or omissions to the International Mechanical Code® (IMC).

ANALYSIS OF PROPOSED RULES

Statutory Authority and Statutes Interpreted:

Statutory authority: ss. 101.02 and 101.025, Stats.
Statutes interpreted: ss. 101.02 and 101.025, Stats.

Under s. 101.025, Stats., the department authority includes requirements for the intake of outside air for ventilation in public buildings or places of employment; the establishment of minimum quantities of outside air that must be supplied based upon the type of occupancy, the number of occupants, areas with toxic or unusual contaminants; and other pertinent criteria determined by the department. The department shall set these standards for mandatory intake of outside air and provisions where these standards may be waived.

The proposed revisions to ch. Comm 64, relating to heating, ventilating and air conditioning and the Wisconsin changes, additions or omission to the International Mechanical Code® (IMC), are primarily related to air-handling systems, particularly ventilation and filtration requirements, located in specific hospital and healthcare occupancies in conformance with specifications contained in the Guidelines for Design and Construction of Hospitals and Health Care Facilities published by the American Institute of Architects (AIA). The proposed modifications herein are based upon the adopted changes to chs. Comm 50 to 64, that will become effective on July 1, 2002 as chs. Comm 14 and 61 to 65 [CR 00-179]].

Section Comm 64.0309 is proposed to clarify that minimum temperatures are required to be maintained during occupancy. Section Comm 64.0401 recognizes that engineered systems are also an option when addressing the location of outdoor air intakes. One change to Table 64.0403 prohibits the use of natural ventilation for make up air in health care facilities. Section Comm 64.0604 is proposed to provide requirements in addition to IMC section 604 and 604.8 limiting the use of certain duct linings so as to mitigate fungal and microbial growth. Section Comm 64.0605 (1) clarifies the specific sections in the AIA Guidelines where filtration is stipulated. Section Comm 64.0900 is proposed to be created to clarify the use of final filters in duct humidifiers.

The proposed rule revisions were developed with the assistance of the HVAC Advisory Code Council. The Council consists of the following individuals: Timothy J. Gasperetti, representing the Building Owners and Managers Association of Milwaukee; Kevin Lichtfuss, representing the Wisconsin Association of Consulting Engineers; Michael Mamayek, representing the Plumbing and Mechanical Contractors of SE Wisconsin; Ken Pavlik, representing the Wisconsin Builders Association; Richard J. Pearson, representing the Wisconsin Chapter ASHRAE; Robert Pertzborn, representing the Wisconsin Association of Plumbing, Heating and Cooling Contractors, Inc.; David Stockland, representing the Associated Builders and Contractors of Wisconsin Ltd; Harry A. Sulzer, representing the League of Wisconsin Municipalities; and Robert D. Wiedenhoefer, representing the Sheet Metal and Air Conditioning Contractors Association of Wisconsin, Inc.

SECTION 1. Comm 64.0300 is created to read:

Comm 64.0300 Specific criteria for operating rooms and autopsy rooms. This is a department rule in addition to the requirements in IMC chapter 3: In operating rooms of hospitals and ambulatory surgery centers rooms and autopsy rooms, the bottoms of ventilation supply and return openings shall be at least 3 inches above the floor.

SECTION 2. Comm 64.0309 (1) is amended to read:

Comm 64.0309 (1) HEATING SYSTEM DESIGN. Except as provided in subds. (2) or (3), the heating system shall be designed and operated to maintain a temperature of not less than that shown in Table 64.0403 at 3 feet above the floor within the occupied space during occupied periods.

SECTION 3. Comm 64.0401 (4) (a) (intro.) is repealed and recreated to read:

Comm 64.0401 (4) (a) Substitute the following wording for the requirements in IMC section 401.5.1:

SECTION 4. Comm 64.0401 (4) (a) 4. is created to read:

Comm 64.0401 (4) (a) 4. For health care facilities all of the following shall apply:

a. Except as provided under subpar. b., outdoor air intakes shall be located at least 25 feet from exhaust outlets of ventilating systems, combustion equipment stacks, medical-surgical vacuum systems, plumbing vents or areas that may collect vehicular exhaust or other noxious fumes.

b. Plumbing and vacuum vents that terminate at a level above the top of the air intake may be located as close as 10 feet to an outdoor air intake.

c. The bottom of outdoor air intakes serving central systems shall be located at least 6 feet above ground level or, when installed above the roof, at least 3 feet above roof level.

d. Exhaust outlets from areas that may be contaminated shall be located above roof level and arranged to minimize recirculation of exhaust air into the building.

SECTION 5. Comm 64.0401 (4) (b) 5. is created to read:

Comm 64.0401 (4) (b) 5. Where it can be demonstrated that an engineered system design will

prevent the maximum concentration of contaminants brought in through the outside air intake from exceeding the maximum contaminant concentration obtainable by providing the separation distances in accordance with sub. (4) (a), the outdoor air intakes may be located in accordance with such engineered system design.

SECTION 6. Comm 64.0403 (3) is renumbered as Comm 64.0403 (3) (b).

SECTION 7. Comm 64.0403 (3) (a) is created to read:

Comm 64.0403 (3) (a) These are department rules in addition to the requirements in IMC section 403.2:

1. In hospitals and ambulatory surgery centers, air supply for operating rooms and delivery rooms that are designed for cesarean sections shall be provided from ceiling outlets located near the center of the work area. Return-air inlets shall be located near the floor level. Each operating room and delivery room designed for cesarean-section deliveries shall have at least 2 return-air inlets located as remotely from each other as practical.

2. In hospitals and ambulatory surgery centers, air supply outlets for rooms used for invasive procedures shall be located at or near the ceiling. Return or exhaust air inlets shall be located near the floor level. Exhaust grills for anesthesia evacuation and other special applications may be installed in the ceiling.

SECTION 8. Comm 64.0403 (4) (a) 6. is created to read:

Comm 64.0403 (4) (a) 6. Recirculation and flow of air in health care facilities shall comply with the requirements in Table 2 or Table 6, as applicable, of AIA Guidelines for Design and Construction of Hospitals and Health Care Facilities.

SECTION 9. Comm 64.0403 (5) (a), (b) 1. a. and (c) 1. are amended to read:

Comm 64.0403 (5) (a) General. ~~Each~~ Except as specified in par. (d), each room served by a common mechanical ventilation system shall be provided with the minimum outdoor airflow rate determined individually for each room, or the minimum amount of outside air may be supplied to the system if a minimum air change rate for each room is either provided in accordance with this section or waived in accordance with par. (c).

(b) *Minimum air change.* 1. 'Application.' a. ~~Required~~ The required air change shall be provided while people are present.

(c) *Air change requirement waived.* The air change requirement for 6 air changes per hour may be omitted in any of the following applications:

1. Spot Buildings or rooms utilizing spot heating as the only source of heat.

SECTION 10. Comm 64.0403 (5) (d) is created to read:

Comm 64.0403 (5) (d) *Air change rates in health care facilities.* Air change rates in health care facilities shall comply with the requirements in Table 2 or Table 6, as applicable, of AIA Guidelines for Design and Construction of Hospitals and Health Care Facilities.

SECTION 11. Comm 64.0403 (6) Table 64.0403 (partial) is amended to read:

Table 64.0403 (partial)
Required Minimum Inside Temperature and Outdoor Ventilation Air

| Occupancy Classification ⁱ | Ventilation Requirements | | | | |
|---------------------------------------|--|--|---------------------------------|---|---|
| | Basis of Capacity | | | | |
| | Minimum Inside Temperature (degrees F) | Estimated Maximum Occupant Load (persons per 1,000 sq. ft.) ^a | Natural Ventilation Allowed | Exhaust ^e (cfm/net sq. ft. floor area) | Air Change Rate ^k (minimum air change per hour with A/C) |
| <u>Health care facilities</u> | footnote m | footnote m | footnote m <u>no</u> | footnote m | footnote m |
| Hospitals | | | | | |
| Nursing homes | | | | | |
| Ambulatory surgery centers | | | | | |

SECTION 12. Comm 64.0604 (1) is renumbered as Comm 64.0604 (3).

SECTION 13. Comm 64.0604 (1) is created to read:

Comm 64.0604 (1) GENERAL. These are department rules in addition to the requirements in IMC sections 604 and 604.8:

(a) 1. Except as provided under subd. 2., in hospitals and ambulatory surgery centers, duct linings exposed to air movement shall not be used in ducts serving operating rooms, delivery rooms, labor, delivery and recovery rooms, nurseries, protective environment rooms and critical care units.

2. In hospitals and ambulatory surgery centers, the requirement in subd. 1. does not apply to mixing boxes and acoustical traps that have special coverings over such lining to mitigate fungal and microbial growth.

(b) In hospitals and ambulatory surgery centers, duct lining shall not be installed within 15 feet downstream of humidifiers or as necessary to prevent moisture accumulation in the lining.

SECTION 14. Comm 64.0605 (1) is amended to read:

Comm 64.0605 (1) ~~Hospitals~~ Central air handling systems in hospitals, nursing homes and ambulatory surgery centers shall comply with the applicable filtration requirements in Tables 2 and 6, part III specified in section 7.31.D8, 8.31.D5, 9.31.D8 or 11.31.D4 of the AIA Guidelines for Design and Construction of Hospitals and Health Care Facilities.

SECTION 15. Comm 64.0605 (2) is renumbered as Comm 64.0605 (4).

SECTION 16. Comm 64.0605 (2) and (3) are created to read:

Comm 64.0605 (2) Non-central air handling systems in hospitals, nursing homes and ambulatory surgery centers shall be equipped with permanent cleanable or replaceable filters with a minimum efficiency of 68 percent weight arrestance.

(3) In hospitals and ambulatory surgery centers, non-central air handling systems shall be used as recirculating units only. All outdoor air requirements shall be met by a separate central air handling system with the filtration as provided in sub. (1).

SECTION 17. Comm 64.0900 is created to read:

Comm 64.0900 Specific criteria for duct humidifiers. These are department rules in addition to the requirements in IMC chapter 9:

(1) For duct humidifiers located upstream of final filters in a hospital or ambulatory surgery center all of the following shall apply:

(a) The duct humidifier shall be located at least 15 feet upstream of the final filters.

(b) The ductwork with duct-mounted humidifiers shall have a means of water removal.

(c) An adjustable high-limit humidistat shall be located downstream of the humidifier to reduce the potential of condensation inside the duct.

(d) All duct takeoffs shall be sufficiently downstream of the humidifier to ensure complete moisture absorption.

(2) For all other humidifiers located in hospitals or ambulatory surgery centers all of the following shall apply:

(a) Steam humidifiers shall be used.

(b) Reservoir-type water spray or evaporative pan humidifiers shall not be used.

EFFECTIVE DATE

Pursuant to s. 227.22 (2) (b), Stats., these rules shall take effect on July 1, 2002 after publication in the Wisconsin Administrative Register.

(end)