

MEMORANDUM

Dear Committee Members:

After the circulation of votes, the final ballot results are as follows on the attached ballot matrix:

- 28 Members Eligible to Vote
- 5 Ballots were not received for Technical Merit by the Final Closing Date of November 7, 2017
- 5 Ballots were not received for Emergency Nature by the Final Closing Date of November 7, 2017

Technical Merit

- 14 Affirmative
- 9 Negative
- 0 Abstain

According to Section 5-4 of the Regulations Governing Committee Projects, the final results of the TIA # 004-18 ballot did not achieve the necessary three-fourths majority for affirmative vote (18) on Technical Merit (28 eligible - 5 not returned - 0 abstain = $23 \times 75\% = 17.25$ or **18**).

Emergency Nature

- 12 Affirmative
- 11 Negative
- 0 Abstain

According to Section 5-4 of the Regulations Governing Committee Projects, the final results of the TIA # 004-18 ballot did not achieve the necessary three-fourths majority for affirmative vote (18) on Emergency Nature (28 eligible - 5 not returned - 0 abstain = $23 \times 75\% = 17.25$ or **18**).

Please feel free to contact me by phone at (909) 230-5535 or by email at enrique.gonzalez@iapmo.org, if you have questions.

Regards,

Enrique Gonzalez
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**2018 Uniform Mechanical Code
TIA # 004-18
Final Ballot Results**

Ballot Name:	TECHNICAL MERIT UMC TIA # 004-18
Ballot Status:	Ballot has closed.
Members Eligible to Vote:	28
Vote Summary	
Option	Count
Affirmative	14
Negative	9
Abstain	0
Did not vote	5
Voter Name	Vote
Wiseman, Bob	Affirmative
Koerber, Ralph	Affirmative
Lovell, Vickie	Affirmative
Hargis, Shawn	Affirmative
Feehan, Pennie	Affirmative
Taylor, Don	Affirmative
Trafton, April	Affirmative
Chang, Ian	Affirmative
Smith, Christopher	Affirmative
Surrena, Donald	Affirmative
Cudahy, Michael	Affirmative
Scarano, Anthony	Affirmative
Howard, III, Eli	Affirmative
Carroll, Marguerite	Affirmative
Mann, David	Negative w/ comment
Adler, Bob	Negative w/ comment
Delaquila, David	Negative w/ comment
Dias, David	Negative w/ comment
Berger, Donald	Negative w/ comment
Ribbs, Phil	Negative w/ comment
Sewell, Robert	Negative w/ comment
Young, Randy	Negative w/ comment
Afonso, Mike	Negative w/ comment
Van Rite, Chris	Did not vote
Garcia, Roel	Did not vote
Kreitenberg, Harvey	Did not vote
Nielsen, John	Did not vote
Pavesic, James	Did not vote

Ballot Name:	EMERGENCY NATURE UMC TIA # 004-18
Ballot Status:	Ballot has closed.
Members Eligible to Vote:	28
Vote Summary	
Option	Count
Affirmative	12
Negative	11
Abstain	0
Did not vote	5
Voter Name	Vote
Wiseman, Bob	Affirmative
Koerber, Ralph	Affirmative
Hargis, Shawn	Affirmative
Feehan, Pennie	Affirmative
Trafton, April	Affirmative
Chang, Ian	Affirmative
Smith, Christopher	Affirmative
Surrena, Donald	Affirmative
Cudahy, Michael	Affirmative
Scarano, Anthony	Affirmative
Howard, III, Eli	Affirmative
Carroll, Marguerite	Affirmative
Lovell, Vickie	Negative w/ comment
Mann, David	Negative w/ comment
Adler, Bob	Negative w/ comment
Taylor, Don	Negative w/ comment
Delaquila, David	Negative w/ comment
Dias, David	Negative w/ comment
Berger, Donald	Negative w/ comment
Ribbs, Phil	Negative w/ comment
Sewell, Robert	Negative w/ comment
Young, Randy	Negative w/ comment
Afonso, Mike	Negative w/ comment
Van Rite, Chris	Did not vote
Garcia, Roel	Did not vote
Kreitenberg, Harvey	Did not vote
Nielsen, John	Did not vote
Pavesic, James	Did not vote

UNIFORM MECHANICAL CODE TIA FORM - 2018

Reference Code Section: E 605.1.3.2 – E 605.1.7.3, ASHRAE 62.2-2016

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Proposed language for TIA:
Modify language as follows:

ASHRAE **E 605.1.3.2 Effective Annual Average Infiltration Rate (Q_{inf})**. Effective Annual Average Infiltration Rate (Q_{inf}) shall be calculated using Equation E 605.1.3.2:

ASHRAE
$$Q_{inf} \text{ (cfm)} = (NL \times wsf \times A_{floor}) / (7.3)^* \text{ [Equation 605.1.3.2]}$$

ASHRAE Where:

ASHRAE NL = normalized leakage

ASHRAE wsf = weather and shielding factor from ASHRAE 62.2.

ASHRAE A_{floor} = floor area of residence, ft²(m²)

ASHRAE * Replace 7.3 with 1.44 for metric units. [ASHRAE 62.2:4.1.2(e)]

ASHRAE **E 605.1.3.3 Required Mechanical Ventilation Rate (Q_{fan})**. Required Mechanical Ventilation Rate (Q_{fan}) shall be calculated using Equation E 605.1.3.3:

ASHRAE
$$Q_{fan} = Q_{tot} - (Q_{inf} \times A_{ext}) \text{ [Equation 605.1.3.3]}$$

ASHRAE Where:

ASHRAE Q_{fan} = required mechanical ventilation rate, cfm (L/s)

ASHRAE Q_{tot} = total required ventilation rate, cfm (L/s)

ASHRAE Q_{inf} = may be not greater than $2/3 \times Q_{tot}$

ASHRAE (see ASHRAE 62.2 for exceptions for existing buildings)

ASHRAE A_{ext} = 1 for single-family detached homes, or the ratio of exterior envelope surface area that is not attached to garages or other dwelling units to total envelope surface area for single-family attached homes. [ASHRAE 62.2:4.1.2(f)]

ASHRAE **E 605.1.7 Variable Mechanical Ventilation**. Dwelling-unit mechanical ventilation systems designed to provide variable ventilation shall comply with Section E 605.1.7.1 or Section E 605.1.7.2 or ~~ASHRAE 62.2 Section E 605.1.7.3~~, Section E 605.1.7.2 and ~~ASHRAE 62.2 Section E 605.1.7.3~~ also require compliance with ASHRAE 62.2 and require verification with supporting documentation from the manufacturer, designer, or specifier of the ventilation control system that the system meets the requirements of these sections. Where the dwelling-unit ventilation rate varies based on occupancy, occupancy shall be determined by occupancy sensors or by an occupant-programmable schedule. [ASHRAE 62.2:4.5]

ASHRAE **E 605.1.7.1 Short-Term Average Ventilation**. To comply with this section, a variable ventilation system shall be installed to provide an average dwelling-unit ventilation rate over any three-hour period that is greater than or equal to Q_{fan} as determined in accordance with ~~ASHRAE 62.2 Section E 605.1.3.3~~. [ASHRAE 62.2:4.5.1]

ASHRAE **E 605.1.7.2 Scheduled Ventilation**. This section shall only be allowed to be used where one or more fixed patterns of designed ventilation are known at the time compliance to ~~ASHRAE 62.2 Section E 605.0~~ is being determined. Such patterns include those both clock-driven and driven by typical meteorological data. Compliance with this section shall be in accordance with ~~ASHRAE 62.2~~ either Section E 6005.1.7.2.1 or Section E 605.1.7.2.2. [ASHRAE 62.2:4.5.2]

ASHRAE **E 605.1.7.2.1 Annual Average Schedule**. An annual schedule of ventilation complies with this section when the annual average relative exposure during occupied periods is not more than unity as calculated in accordance with ASHRAE 62.2. [ASHRAE 62.2:4.5.2.1]

ASHRAE **E 605.1.7.2.2 Block Scheduling**. The schedule of ventilation complies with this section when it is broken into blocks of time and each block individually has an average relative exposure during occupied periods that is not more than unity as calculated in ASHRAE 62.2. [ASHRAE 62.2:4.5.2.2]

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E 605.1.7.3 Real-Time Control. A real-time ventilation controller complies with this section when it is designed to adjust the ventilation system based on real-time input to the ventilation calculations so that the average relative exposure during occupied periods is not more than unity as calculated in ASHRAE 62.2. The averaging period shall be not less than one day but not more than one year and shall be based on simple, recursive or running average, but not extrapolation. [ASHRAE 62.2:4.5.3]

Substantiation:

Technical Merit: Current requirements in Appendix E were extracted from ASHRAE 62.2-2016. However, the provisions do not correlate completely with ASHRAE 62.2.

The extract update modifies the provisions for “required mechanical ventilation” (Q_{fan}) as the value for Q_{fan} was previously removed without being replaced.

Emergency nature: The emergency nature of this proposed TIA is supported by Section 5-2(a) of the Regulations Governing Committee Projects, “*The document contains an error or an omission that was overlooked during a regular revision process.*” Furthermore, the current Mechanical Code has values for Q_{fan} that will conflict with the latest requirements of ASHRAE 62.2-2016, latest edition, which now uses different values for the required mechanical fan ventilation.

I hereby grant IAPMO all and full rights in copyright, in this proposal, and I understand that I acquire no rights in any publication of IAPMO in which this proposal appears in this or another similar or analogous form.

Submitter signature (required): _____April Trafton_____ Date: October 24, 2017

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