

<b>DOCKETED</b>	
<b>Docket Number:</b>	15-BSTD-02
<b>Project Title:</b>	Residential Compliance Manual and Documents
<b>TN #:</b>	232820-5
<b>Document Title:</b>	2016-CF3R-MCH-27a-ContinuousMechVent-FanVentRateMethodpdf
<b>Description:</b>	N/A
<b>Filer:</b>	Corrine Fishman
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**INDOOR AIR QUALITY AND MECHANICAL VENTILATION**

CEC-CF3R-MCH-27-H (Revised 09/18)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF VERIFICATION		CF3R-MCH-27a-H
Indoor Air Quality and Mechanical Ventilation		(Page 1 of 2)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City:	Zip Code:

Title 24, Part 6, Section 150.0(o) **Ventilation for Indoor Air Quality.** All dwelling units shall meet the requirements of ANSI/ASHRAE Standard 62.2 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings. **Equation and table numbering on this compliance document corresponds to the numbering for that information in the published ANSI/ASHRAE Standard 62.2-2010.**

A. Dwelling Mechanical Ventilation - General Information	
01	Dwelling Unit Name
02	Building Type
03	Project Scope
04	Total Conditioned Floor Area of Dwelling Unit (For addition projects the conditioned floor area equals existing area plus addition area)
05	Number of Bedrooms in Dwelling Unit (For addition projects the number of bedrooms equals the existing bedrooms plus addition bedrooms)
06	Ventilation Operation Schedule
07	Whole-Building Ventilation Rate Calculation Method
08	Whole Building Ventilation System Type
09	IAQ Fan Location

<b>MCH-27a - Continuous Ventilation Airflow - Fan Ventilation Rate Method</b>
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B. Whole-Building Continuous Ventilation - Fan Ventilation Rate Method	
A mechanical supply system, exhaust system, or combination thereof shall provide whole-building ventilation with outdoor air each hour at no less than the rate in equation 4.1a.	
01	Required Continuous Whole-Building Ventilation Rate ( $Q_{fan}$ )
02	Installed Continuous Whole-Building Ventilation Rate

C. Compliance Statement	
01	

D. Determination of HERS Verification Compliance	
All applicable sections of this document shall indicate compliance with the specified verification protocol requirements in order for this Certificate of Verification as a whole to be determined to be in compliance.	
01	

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CERTIFICATE OF VERIFICATION		CF3R-MCH-27a-H
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**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Verification documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Date Signed:
Address:	CEA/HERS Certification Information (if applicable):
City/State/Zip:	Phone:

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Verification is true and correct.
- I am the certified HERS Rater who performed the verification identified and reported on this Certificate of Verification (responsible rater).
- The installed features, materials, components, manufactured devices, or system performance diagnostic results that require HERS verification identified on this Certificate of Verification comply with the applicable requirements in Reference Appendices RA2, RA3, and the requirements specified on the Certificate of Compliance for the building approved by the enforcement agency.
- The information reported on applicable sections of the Certificate(s) of Installation (CF2R) signed and submitted by the person(s) responsible for the construction or installation conforms to the requirements specified on the Certificate(s) of Compliance (CF1R) approved by the enforcement agency.
- I will ensure that a registered copy of this Certificate of Verification shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this Certificate of Verification is required to be included with the documentation the builder provides to the building owner at occupancy.

**BUILDER OR INSTALLER INFORMATION AS SHOWN ON THE CERTIFICATE OF INSTALLATION**

Company Name (Installing Subcontractor, General Contractor, or Builder/Owner):	
Responsible Builder or Installer Name:	CSLB License:

**HERS PROVIDER DATA REGISTRY INFORMATION**

Sample Group Number (if applicable):	Dwelling Test Status in Sample Group (if applicable):
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**HERS RATER INFORMATION**

HERS Rater Company Name:	
Responsible Rater Name:	Responsible Rater Signature:
Responsible Rater Certification Number w/ this HERS Provider:	Date Signed:

**CF3R-MCH-27a-H User Instructions****Section A. General Information**

- 1 This information is automatically pulled from the CF1R. This is the unique identifier for this dwelling unit. Needed mostly for multifamily dwelling units. Ventilation is calculated and provided for each dwelling unit individually.
- 2 This information is automatically pulled from the CF1R. Choices are “single family” and “low-rise multifamily”.
- 3 This information is automatically pulled from the CF1R. Choices are “New Construction” and “Addition greater than 1,000 ft<sup>2</sup>”.
- 4 Value to be entered in the field equals the conditioned floor area of the space for which the ventilation is being calculated, in ft<sup>2</sup>. For additions over 1,000 ft<sup>2</sup>, this will be the floor area of the existing home plus the addition.
- 5 Value to be entered in the field equals the number of bedrooms in the home. For additions over 1,000 ft<sup>2</sup>, this will be the number of bedrooms in the existing home plus the number of bedrooms in the addition.
- 6 Select the Ventilation Operation Schedule method used from the choices provided:
  - Continuous (the fan that provides ventilation will run 24/7)
  - Intermittent (the fan that provides ventilation will be on some of the time and off some of the time)
- 7 Select the Whole Building Ventilation Rate Calculation Method from the choices provided:
  - Fan Ventilation Rate Method (only assumes ventilation from the ventilation fan)
  - Total Ventilation Rate Method (assumes that some ventilation is provided by infiltration)
- 8 Select the Whole Building Ventilation System Type from the choices provided:
  - Standalone – Exhaust (ventilation fan[s] push air out of the house)
  - Standalone – Supply (ventilation fan[s] push air into house)
  - Standalone - Balanced (ventilation fan[s] push air into AND out of the house in equal amounts)
  - Central Fan Integrated – CFI (central space condition system fan is used to pull air into the house) Note: these may not run continuously. If “Continuous” is chosen in A06 an error message will be shown.
- 9 This information is automatically pulled from the CF2R.

**Section B. Whole Building Continuous Ventilation – Fan Ventilation Rate Method**

- 1 This value is automatically calculated using equation 4.1a. The equation used to calculate this value in the field equals:
  - a. If A02= Single Family then  $[(0.01 \times \text{conditioned floor area } A04) + 7.5(\text{Number of bedrooms } A05 + 1)] = \text{Continuous Whole-Building Ventilation Rate}$
  - b. If A02= Multifamily then  $[(0.03 \times \text{conditioned floor area } A04) + 7.5(\text{Number of bedrooms } A05 + 1)] = \text{Continuous Whole-Building Ventilation Rate}$
- 2 User entered value equals the total installed, continuous mechanical ventilation in CFM. This value must meet or exceed that value in B01.