



MCH-06-A

Project Name and Address	Authority Having Jurisdiction
Name: Project Name	Enforcement Agency: Agency
Address: Project Address	Permit Number: Permit Number
City, Zip: City, Zip Code	Permit Application Date: Date

Building: Enter Value	Floor: Enter Value	Room: Enter Value	Control/tag: Value
-----------------------	--------------------	-------------------	--------------------

<input type="checkbox"/> Construction inspection and functional testing comply	Date Submitted to AHJ: Date
<input type="checkbox"/> Does not comply	

Intent:	Demand ventilation controls (DVC) complying with §120.1(d)4 are required for a space with a design occupant density, or a maximum occupant load factor for egress purposes in the CBC, greater than or equal to 25 people per 1,000 square feet (40 square feet or less per person) if the ventilation system serving the space has one or more of the following: an air economizer, modulating outside air control, or design outdoor airflow rate > 3,000 cfm (§120.1(d)3). This acceptance test verifies that a system required to employ a DVC can vary outside air ventilation flow rates based on maintaining interior carbon dioxide (CO ₂) concentration setpoints in compliance with §120.1(d)4. NRCA-MCH-02-A must be completed either prior to or concurrently with this acceptance test for the space in which the CO ₂ monitor is located. One NRCA-MCH-06-A must be completed for each CO ₂ sensor in the system that must demonstrate compliance. For direct Energy Code reference see §120.1(d)3, 4, §120.1(ec)3, §120.5(a)5, §160.2(c)3, §160.3(d)1E, NA7.5.1, and NA7.5.5.
----------------	--

Table A: Construction Inspection

Prior to functional testing, verify and document all of the following

Step	Entry	Item	Code Reference
1.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the NRCC-MCH-E as approved by the authority having jurisdiction <u>or NRCC-PRF-E for the performance path</u> or LMCC-MCH-E <u>or LMCC-PRF-E, as registered by a CEC approved HERS data registry</u> is available for reference.	§10-103(a)2A
1.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	Verify access to any applicable factory calibration certificate(s). (Pass, Fail, or N/A)	N/A
1.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> Concurrent	Verify access to a compliant NRCA-MCH-02-A (maybe conducted concurrently) for the space in which the CO ₂ sensor is located. (Pass, Fail, or Concurrent)	NA7.5.1
2.0	No Entry	Using the documentation in Step 1. verify that the CO ₂ sensor is factory calibrated by verifying all of Step 2.	NA7.5.5.1(a), §120.1(d)4E, §160.2(c)5Dvi



MCH-06-A

Step	Entry	Item	Code Reference
2.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the CO ₂ sensor is accurate to within plus or minus 75 ppm at a 600 ppm and 1000 ppm concentration when measured at sea level and 25°C.	NA7.5.5.1(a), §120.1(d)4F, §160.2(c)5Dvi
2.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the sensor is certified by the manufacturer to require calibration no more frequently than once every 5 years.	NA7.5.5.1(a), §120.1(d)4F, §160.2(c)5Dvi
2.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that upon detection of sensor failure, the system provides a signal which resets the system to supply the minimum quantity of outside air to levels indicated by the approved design.	NA7.5.5.1(a), NRCC-MCH-E- Table J, LMCC-MCH-E Table J, <u>NRCC- PRF-E Table H9, LMCC-PRF-E</u> §120.1(c)3, §120.1(d)4F, 160.2(c)3, §160.2(c)5Dvi
2.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	If the system includes Direct Digital Control, then verify that the CO ₂ sensor(s) reading for each zone is displayed continuously and recorded. (Pass, Fail, N/A)	NA7.5.5.1(a), §120.1(d)4G, §160.2(c)5Dvii
3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the sensor is located in the high density space between 3 ft and 6 ft above the floor or at the anticipated level of the occupants' heads.	NA7.5.5.1(b), §120.1(d)4B, §160.2(c)5Dii
4.0	No Entry	Verify either Step 4.1 or 4.2.	N/A
4.1, or	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	Verify that the DVC system is set to assume that outdoor air CO ₂ concentrations are 400 ppm. (Pass, Fail, N/A)	NA7.5.5.1(c), §120.1(d)4Di, §160.2(c)5Diva
4.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	Verify that the DVC system uses a CO ₂ sensor located within 4 ft of the outdoor air intake to measure and use outdoor air CO ₂ concentrations. (Pass, Fail, N/A)	NA7.5.5.1(c), §120.1(d)4Dii, §160.2(c)5Divb
5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the DCV control CO ₂ setpoint is set to less than or equal to 600 ppm plus the outdoor air CO ₂ concentration in all rooms with CO ₂ sensors (reference Step 4).	NA7.5.5.1(c), §120.1(d)4C, §160.2(c)5Diii
6	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Verify that the space in which the CO ₂ sensor is installed is no greater than one sensor per 10,000 ft ² .	§120.1(d)4A, §160.2(c)5Di



MCH-06-A

Step	Entry	Item	Code Reference
7	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	If a zone or a space is served by more than one sensor, then verify that the DCV and sensors are configured such that a signal from any one sensor indicating that CO ₂ is near or at the setpoint within the zone or space will trigger the system to increase ventilation. (Pass, Fail, N/A)	§120.1(d)4A §160.2(c)5Di
8	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check "Pass" if construction inspection complies with all requirements. Check "Fail" if construction inspection does not comply with all requirements.	N/A

Table B: Functional Testing

Step	Entry	Functional Test	Code Reference
1.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Disable economizer controls.	NA7.5.5.2 Step 1
2.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Simulate a signal for the DVC at the CO ₂ sensor slightly above the CO ₂ concentration setpoint and verify the following for all of Step 2.	NA7.5.5.2 Step 2
2.1, or	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For single zone units, verify that the outdoor air damper modulates open to satisfy the total ventilation air called for in the NRCC-MCH-E, Table J <u>or NRCC-PRF-E, Table H9, LMCC-MCH-E Table J, or LMCC-PRF-E.</u> (Pass, Fail, N/A)	NA7.5.5.2 Step 2(a)
2.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For multiple zone units, verify that the zone damper (or outdoor air damper when applicable) modulates open to satisfy the zone ventilation requirements. (Pass, Fail, N/A)	NA7.5.5.2 Step 2(b)
3.0	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Simulate a signal for the DVC at the CO ₂ sensor well below the CO ₂ concentration setpoint. Verify either Steps 3.1 or 3.2.	NA7.5.5.2 Step 3
3.1, or	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For single zone units, verify that the outdoor air damper modulates to the design minimum value. (Pass, Fail, N/A)	NA7.5.5.2 Step 3(ac), NRCC-MCH-E Table J, LMCC-MCH-E Table J, <u>NRCC-PRF-E,</u> <u>Table H9,</u> <u>LMCC-PRF-E</u>



MCH-06-A

Step	Entry	Functional Test	Code Reference
3.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> N/A	For multiple zone units, verify that the zone damper (or outdoor air damper when applicable) modulates to satisfy the reduced zone ventilation requirements. (Pass, Fail, N/A)	NA7.5.5.2 Step 3(bd), NRCC-MCH-E Table J, LMCC-MCH-E Table J, <u>NRCC-PRF-E, Table H9, LMCC-PRF-E</u>
4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Restore economizer controls and remove all system overrides initiated during the test.	NA7.5.5.2 Step 4
5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	With all controls restored, apply CO ₂ calibration gas at a concentration slightly above the setpoint to the CO ₂ sensor. Verify that the outdoor air damper modulates open to satisfy the total ventilation air called for in the NRCC-MCH-E, Table J or <u>or NRCC-PRF-E, Table H9 or</u> LMCC-MCH-E, Table J <u>or LMCC-PRF-E</u> .	NA7.5.5.2 Step 5, NRCC-MCH-E Table J LMCC-MCH-E Table J <u>NRCC-PRF-E Table H9 LMCC-PRF-E</u>
6	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check "Pass" if the Functional Test complies with all requirements in Steps 1-5.	N/A



Declaration Statement	Signatory
Document Author I assert that this Certificate of Acceptance documentation is accurate and complete.	Name Company Name Author Signature Date Signed
Acceptance Test Technician I certify the following under penalty of perjury, under the laws of the State of California: The information provided on this Certificate of Acceptance is true and correct. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician). The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements indicated in the plans and specifications approved by the enforcement agency, and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and signed by the responsible builder/installer and has been posted or made available with the building permit(s) issued for the building.	Name Company Name ATT No.: ATT Cert. No. Title Phone Signature Date Signed
Responsible Person I assert the following under penalty of perjury, under the laws of the State of California: I am the Field Technician, or the Field Technician is acting on my behalf as my employee or my agent and I have reviewed the information provided on this Certificate of Acceptance. I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Acceptance and attest to the declarations in this statement (responsible acceptance person). The information provided on this Certificate of Acceptance substantiates that the construction or installation identified on this Certificate of Acceptance complies with the acceptance requirements indicated in the plans and specifications approved by the enforcement agency and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and is posted or made available with the building permit(s) issued for the building. I understand that a completed, signed copy of this Certificate of Acceptance 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, and I will take the necessary steps to ensure this requirement is accomplished. I understand that a signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to ensure this requirement is accomplished.	Name Company Name Lic. No.: License No. Title Phone Signature Date Signed