Does not comply

## CALIFORNIA ENERGY COMMISSION SUPPLY FAN CONTROLS

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
Construction inspec	ction and functional testi	ng comply	Date Sub	omitted to AHJ: Date

## **Intent:**

Verify that the supply fan speed in a variable air volume system modulates to meet system airflow demand. Either an NRCC-MCH-E for nonresidential construction that is completed and approved by the authority having jurisdiction or NRCC-PRF-E for the performance path or an LMCC-MCH-E or LMCC-PRF-E for multifamily construction that is registered with a CEC approved HERSECC data registry is required prior to beginning this acceptance test. Submit one Certificate of Acceptance for each system that must demonstrate compliance. NRCA-MCH-07-A can be performed in conjunction with NRCA-MCH-02-A Outdoor Air Acceptance since testing activities overlap. Reference: §140.4(c)2, §170.2(c)4Aii, and NA7.5.6

## **Table A: Construction Inspection**

Prior to functional testing, verify and document all of the following for each system or control.

Step	Entry	Item	Code Reference
1	☐ Pass ☐ Fail	Verify that the NRCC-MCH-E as approved by the authority having jurisdiction or NRCC-PRF-E for the performance path or LMCC-MCH-E or LMCC-PRF-E as registered by an CECECC approved HERS data registry is available for reference.	<del>N/A</del> §10- 103(a)2A
2	Pass Fail	Verify that the supply fan includes device(s) for modulating airflow, such as variable speed drive or electrically commutated motor.	NA7.5.6.1(a)
3.0	No Entry	For multiple zone systems, verify that Ddischarge static pressure sensors are either factory calibrated or field-calibrated by verifying one of the following: Steps 3.1 or 3.2.	NA7.5.6.1(b)1
3.1, or	Pass Fail N/A	Factory calibrated.	NA7.5.6.1(b)1

Step	Entry	Item	Code Reference
3.2	☐ Pass ☐ Fail ☐ N/A	<ul> <li>Field calibrationed.:         <ul> <li>Measure static pressure as close to the existing sensor as possible using a calibrated hand-held measuring device.</li> <li>Compare the field measured value to the value measured by the Building Automation System (BAS).</li> <li>When the value measured by the BAS is within 10 percent of the field measured value, the sensor is calibrated.</li> </ul> </li> <li>(Pass, Fail, or N/A)</li> </ul>	NA7.5.6.1(b)1
4.0	No Entry	Verify that the static pressure location, setpoint, and reset control meet the requirements of §140.4(c)2A and §140.4(c)2B (if applicable) or §170.2(c)4Aiia and §170.2(c)4Aiib (if applicable) by completing all of Step 4: Complete 4.1 or 4.2 and then complete 4.3.	NA7.5.6.1(b)2
4.1, or	☐ Pass ☐ Fail ☐ N/A	Verify that the set point is no greater than one- third of the total design fan static pressure. (Pass, Fail, or N/A)	§140.4(c)2A, §170.2(c)4Aiia <del>,</del> NRCC-MCH-E Table J, LMCC-MCH-E Table J
4.2, and	☐ Pass ☐ Fail ☐ N/A	If the system includes a direct digital control of individual zone boxes reporting to the central control panel, then verify that the static pressure setpoints are able to be reset based on the zone requiring the most pressure (i.e., the set point is reset lower until one zone damper is nearly wide open). (Pass, Fail, or N/A)	§140.4(c)2B, §170.2(c)4Aiib
4.3	☐ Pass ☐ Fail ☐ N/A	If the <b>static pressure sensor</b> is located downstream of major duct splits, then verify that multiple sensors are installed in each major branch with fan capacity controlled to satisfy the sensor furthest below its setpoint.  (Pass, Fail, or N/A)	§140.4(c)2A, §170.2(c)4Aiia
5	☐ Pass ☐ Fail	Check "Pass" if construction inspection <b>complies</b> with all requirements. Check "Fail" if construction inspection <b>does not comply</b> with all requirements.	N/A

**Table B: Functional Testing** 

Step	Entry	Functional Test	Code Reference
1.0	Pass Fail	Simulate demand for full design airflow for all of Step 1.	NA7.5.6.2 Step 1
1.1	Pass Fail	Verify that the supply fan controls modulate to increase capacity.	NA7.5.6.2 Step 1(a)
1.2	☐ Pass ☐ Fail ☐ N/A	For multiple zone system, verify that the supply fan maintains discharge static pressure within +/- 10 percent of the current operating setpoint. (Pass, Fail, or N/A)	NA7.5.6.2 Step 1(b)
1.3	☐ Pass ☐ Fail	Verify that the supply fan controls stabilize within a 5minute period.	NA7.5.6.2 Step 1(c)
2.0	Pass Fail	Simulate demand for reduced or minimum airflow for all of Step 2.	NA7.5.6.2 Step 2
2.1	Pass Fail	Verify that the supply fan controls modulate to decrease capacity.	NA7.5.6.2 Step 2(d)
2.2	Pass Fail N/A	For systems with DDC to the zone level, verify that the current operating setpoint has decreased. (Pass, Fail, or N/A)	NA7.5.6.2 Step 2(e)
2.3	☐ Pass ☐ Fail ☐ N/A	For multiple zone system, verify that the supply fan maintains discharge static pressure within +/- 10 percent of the current operating setpoint. (Pass, Fail, or N/A)	NA7.5.6.2 Step 2(f)
2.4	☐ Pass ☐ Fail	Verify that the supply fan controls stabilize within a 5minute period.	NA7.5.6.2 Step 2(g)
3	Pass Fail	Restore system to normal operating conditions.	NA7.5.6.2 Step 3
4	Pass Fail	Check pass if Functional Test passes on Steps 1 through 3	N/A

<b>Declaration Statement</b>	Signatory
Document Author	Name
I assert that this Certificate of Acceptance documentation is accurate and complete.	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:	Name
The information provided on this Certificate of Acceptance is true and correct. I am the person who	Company Name
performed the acceptance verification reported on this Certificate of Acceptance (Field Technician). The	ATT No.: ATT Cert. No.
construction or installation identified on this Certificate of Acceptance complies with the applicable	Title
acceptance requirements indicated in the plans and specifications approved by the enforcement agency	Phone
and conforms to the applicable acceptance requirements and procedures specified in Reference	Signature
Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or	Date Signed
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.	
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	Name
(responsible acceptance person). The information provided on this Certificate of Acceptance substantiates	Company Name
that the construction or installation identified on this Certificate of Acceptance complies with the	Lic. No.: License No.
acceptance requirements indicated in the plans and specifications approved by the enforcement agency	Title
and conforms to the applicable acceptance requirements and procedures specified in Reference	Phone
Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction	Signature
or installation identified on this Certificate of Acceptance has been completed and is posted or made	Date Signed
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.	