



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

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

Intent:	Verify that the air-cooled condenser has ambient dry-bulb following control and fan motor variable speed control. Reference NRCC-MCH-E for nonresidential (including nonresidential spaces in high-rise multifamily) building permits or LMCC-MCH-E for nonresidential spaces in low-rise multifamily building permits. Submit one Certificate of Acceptance for each system that must demonstrate compliance. Reference 120.6(a)4, 120.6(a)7, 140.4(h), 170.2(c)4F, NA7.10.3.
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Table A: Construction Inspection

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

Step	Entry	Item	Code Reference
1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The minimum condensing temperature control setpoint is at or below 70°F	NA7.10.3.2.1(a)
2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	The master system controller saturated condensing temperature input is the temperature equivalent reading of the condenser pressure sensor.	NA7.10.3.2.1(b)
3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All drain leg pressure regulator valves are set below the minimum condensing temperature/pressure setpoint.	NA7.10.3.2.1(c)
4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Receiver pressurization valves, such as the outlet pressure regulator (OPR), (if used) are set lower than the drain leg pressure regulator valve setting.	NA7.10.3.2.1(d)
5	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All condenser inlet and outlet pressure sensors read accurately (or provide an appropriate offset) using a pressure standard.	NA7.10.3.2.1(e)
6	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All ambient dry bulb temperature sensors read accurately (or provide an appropriate offset) using a temperature standard.	NA7.10.3.2.1(f)
7	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Temperature sensor used by the controller is mounted in a location that is not exposed to direct sunlight.	NA7.10.3.2.1(g)
8	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All sensor readings used by the condenser controller convert or calculate to the correct conversion units at the controller	NA7.10.3.2.1(h)
9	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All condenser fan motors are operational and rotating in the correct direction.	NA7.10.3.2.1(i)



Step	Entry	Item	Code Reference
10	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All condenser fan speed controls are operational and connected to condenser fan motors to operate in unison the fans serving a common condenser loop.	NA7.10.3.2.1(j)
11	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All speed controls are in "auto" mode.	NA7.10.3.2.1(k)
12	<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

The system cooling load must be sufficiently high to run the test (i.e. with a condensing temperature above the minimum SCT set point). The loads can often be increased somewhat as required to perform the Functional Testing.

Step	Entry	Functional Test	Code Reference
1.1	No Entry	Override any conflicting controls before performing functional tests.	NA7.10.3.2.2 Step 1
1.2	No Entry	Current ambient dry-bulb temperature (DBT).	NA7.10.3.2.2 Step 1
1.3	<input type="checkbox"/> °F <input type="checkbox"/> psig	Current saturated condensing temperature (SCT) or condensing pressure from the control system.	NA7.10.3.2.2 Step 1
2.1		Calculate the actual condenser temperature difference (Actual TD) [SCT – DBT]. (°F)	NA7.10.3.2.2 Step 2
2.2	<input type="checkbox"/> °F <input type="checkbox"/> psig	Current SCT or pressure control set point.	NA7.10.3.2.2 Step 2
3	No Entry	Set the Control TD set point to the Actual TD obtained in Step 2. This will be referred to as the "test set point." Allow 5 minutes for condenser fan speed to normalize.	NA7.10.3.2.2 Step 3
4	No Entry	Using the control system, raise the test set point in 1°F increments until the condenser fan control modulates to minimum fan motor speed.	NA7.10.3.2.2 Step 4
4.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Fan motor speed decrease.	NA7.10.3.2.2 Step 4(a)
4.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All condenser fan motors serving common condenser loop decrease speed in unison in response to controller output; observed at the control system and at the condenser(s).	NA7.10.3.2.2 Step 4(b)
4.3	<input type="checkbox"/> rpm <input type="checkbox"/> hertz <input type="checkbox"/> % full speed	Record the minimum fan motor control speed. Enter with units as rpm, Hertz, or percent of full speed.	NA7.10.3.2.2 Step 4(c)



Step	Entry	Functional Test	Code Reference
5	No Entry	Using the control system, lower the test set point in 1°F increments until the condenser fan control modulates to increase fan motor speed.	NA7.10.3.2.2 Step 5
5.1	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Fan motor speed increases.	NA7.10.3.2.2 Step 5(a)
5.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All condenser fan motors serving common condenser loop increase speed in unison in response to controller output; observed at the control system and at the condenser(s).	NA7.10.3.2.2 Step 5(b)
6	No Entry	Using the control system, change the minimum SCT set point to a value greater than the current operating SCT.	NA7.10.3.2.2 Step 6
6.1		Record the current minimum condensing temperature set point. (°F)	NA7.10.3.2.2 Step 6
6.2	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Condenser fan controls modulate to decrease capacity.	NA7.10.3.2.2 Step 6(a)
6.3	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	All condenser fans serving common condenser loop modulate in unison.	NA7.10.3.2.2 Step 6(b)
6.4	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Condenser fan controls stabilize within a 5-minute period.	NA7.10.3.2.2 Step 6(c)
7	No Entry	Restore the Control TD and the minimum SCT set point to the values recorded in Step #2.2 and #6.1.	NA7.10.3.2.2 Step 7
8	No Entry	Restore any controls overridden in Step #1.	NA7.10.3.2.2 Step 8
9	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	Check Pass if Functional Test Compliance Results complies	NA7.10.3.2.2 Step 8



Declaration Statement	Signatory
<p>Document Author I assert that this Certificate of Acceptance documentation is accurate and complete</p>	
<p>Field Technician I assert 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.</p>	
<p>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.</p>	