EVAP CONDENSER CONTROLS 2025-CEC-NRCA-PRC-05-F

Project Name and Address		Authority	Authority Having Jurisdiction	
Name: Enf		Enforcemen	Enforcement Agency:	
			mit Number:	
City, Zip Code: Permit Application Date:		ication Date:		
Building:	Floor:	Room:	Control/tag:	
Construction inspection and functional testing comply Does not comply		Date Submitted to AHJ:		
	•			
Intent:	Verify that the evaporative condenser has ambient wet-bulb following control and fan motor variable speed control. Reference NRCC-PRC-E. Submit one Certificate of Acceptance for each system that must demonstrate compliance. Reference Sections 120.6(a)7C, 140.4(h), 170.2(c)4F and NA7.10.3.1.			

Table A: Construction InspectionPrior to functional testing, verify and document all of the following:

11101 10	Turiculariar co	esting, verify and document all of the following.	Code
Step	Entry	Item	Reference
1.0	Pass Fail	Verify that the minimum condensing temperature control setpoint is at or below 70°F.	NA7.10.3.1.1(a)
2.0	☐ Pass ☐ Fail	Verify that the master system controller saturated condensing temperature input is the temperature equivalent reading of the condenser pressure sensor.	NA7.10.3.1.1(b)
3.0	☐ Pass ☐ Fail ☐ N/A	Verify that all drain leg pressure regulator valves (if used) are set below the minimum condensing temperature/pressure setpoint.	NA7.10.3.1.1(c)
4.0	☐ Pass ☐ Fail ☐ N/A	Verify that all the receiver pressurization valves, such as the outlet pressure regulator (OPR), (if used) are set lower than the drain leg pressure regulator valve setting.	NA7.10.3.1.1(d)
5.0	Pass Fail	Verify that all condenser pressure, temperature, and humidity sensors read accurately.	NA7.10.3.1.1 (e, f, g)
6.0	Pass Fail	Verify that all temperature sensors used by the controller are mounted in a location that is not exposed to direct sunlight.	NA7.10.3.1.1(h)
7.0	Pass Fail	Verify that all sensor readings used by the condenser controller convert or calculate to the correct conversion units at the controller.	NA7.10.3.1.1(i)
8.0	Pass Fail	Verify that all condenser fan motors are operational and rotating in the correct direction.	NA7.10.3.1.1(j)
9.0	☐ Pass ☐ Fail	Verify that all condenser fan speed controls are operational and connected to condenser fan motors to operate the fans serving a common condenser loop in unison.	NA7.10.3.1.1(k)
10.0	Pass Fail	Verify that all speed controls are in "auto" mode.	NA7.10.3.1.1(I)

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Step	Entry	Item	Code Reference
11.0	☐ Pass ☐ 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.				
Ston	Entro	Functional Tost	Code Reference	
Step	Entry	Functional Test		
1.0	No Entry	Override any conflicting controls before performing	NA7.10.3.1.2	
	,	functional tests.	Step 1	
		Document the current operating conditions and the	NA7.10.3.1.2	
2.0	No Entry	current set points in Steps 2.1, 2.2, 2.3, 2.4, 2.5,	Step 2	
		and 2.6:	<u> </u>	
2.1	٥F	Current outdoor ambient air dry bulb temperature.	NA7.10.3.1.2	
	•	carrent dataon ambient an ary bails temperaturer	Step2(a)	
2.2	٥F	Current outdoor ambient air wet bulb temperature.	NA7.10.3.1.2	
2.2		Carrent outdoor ambient all wet balb temperature.	Step2(a)	
2.3		Current ambient relative humidity (RH). (% RH)	NA7.10.3.1.2	
2.5		Current ambient relative numbers (1817). (70 1817)	Step 2(a)	
2.4		Current saturated condensing temperature (SCT) or	NA7.10.3.1.2	
2.7	☐ °F ☐ psig	condensing pressure.	Step 2(a)	
		Calculate the condenser temperature difference	NA7.10.3.1.2	
2.4		(TD) = [SCT – WBT]. (°F) The SCT can be found in		
		step 2.4 and the WBT can be found in step 2.2.	Step 2(b)	
2.5		Current proceure central set point	NA7.10.3.1.2	
2.5	☐ °F ☐ psig	Current pressure control set point.	Step 2(c)	
2.6		Current condenser control temperature difference	NA7.10.3.1.2	
2.0		(Control TD). (°F)	Step 2(c)	
		Depending on the control strategy used, program a		
		setpoint equal to the calculation obtained in Step	NA7.10.3.1.2	
3.0	No Entry	2.4 or the value in step 2.5 This will be referred to		
		as the "test set point." Allow 5 minutes for	Step 3	
		condenser fan speed to normalize.		
		Raise the test setpoint in 1°F (or 3 psi) increments	NA7.10.3.1.2	
4.0	No Entry	until the condenser fan control modulates to		
	,	minimum fan motor speed.	Step 4	
4.1	Pass		NA7.10.3.1.2	
4.1	☐ Fail	Verify that the fan motor speed decreases.	Step 4(d)	
		Verify that all condenser fan motors serving		
42	☐ Pass	common condenser loop decrease speed in unison	NA7.10.3.1.2	
4.2	☐ Fail	in response to controller output; observed at the	Step 4(e)	
		control system and at the condenser(s).	,	

			Code
Step	Entry	Functional Test	Reference
4.3	☐ rpm ☐ %	Record the minimum fan speed. Enter with units as rpm, or percent of full speed (%).	NA7.10.3.1.2 Step 4(f)
4.4	No Entry	If system is already operating at minimum saturated condensing temperature/head pressure, reverse Steps 4 and 5.	NA7.10.3.1.2 Step 4(g)
5.0	No Entry	Lower the test setpoint in 1°F (or 3 psi)increments until the condenser fan control modulates to increase fan motor speed.	NA7.10.3.1.2 Step 5
5.1	Pass Fail	Verify that the fan motor speed increases.	NA7.10.3.1.2 Step 5(h)
5.2	☐ Pass ☐ Fail	Verify that 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).	NA7.10.3.1.2 Step 5(i)
6.0		Document the current minimum SCT setpoint. (°F)	NA7.10.3.1.2 Step 6
6.1	No Entry	Using the control system, change the minimum condensing temperature setpoint to a value greater than the current operating condensing temperature.	NA7.10.3.1.2 Step 6
6.2	Pass Fail	Verify that the condenser fan controls modulate to decrease capacity.	NA7.10.3.1.2 Step 6(j)
6.3	Pass Fail	Verify that all condenser fans serving common condenser loop modulate in unison.	NA7.10.3.1.2 Step 6(k)
6.4	Pass Fail	Verify that the condenser fan controls stabilize within a 5 minute period.	NA7.10.3.1.2 Step 6(I)
7.0	No Entry	Restore the Control TD and the minimum SCT setpoint to the values recorded in Step 2.5 and 6.1.	NA7.10.3.1.2 Step 7
8.0	No Entry	Restore any controls disabled in Step 1.	NA7.10.3.1.2 Step 8
9.0	☐ Pass ☐ Fail	Check pass if Functional Test complies with all requirements. Check fail if any Functional Test does not comply.	N/A

Document Author	
I assert that this Certificate of Acceptance documentation is accurate and complete	Author Name
	Company Name
	Author Signature
	ration signature
	Date Signed
Field Technician	
I certify the following under penalty of perjury, under the laws of the State of California:	Field Tech. Name
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	Company Name
of Acceptance (Field Technician). The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements	Title
indicated in the plans and specifications approved by the enforcement agency and	Phone
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	Field Tech. Signature
has been posted or made available with the building permit(s) issued for the	Tiela Teem Signature
building.	Date Signed
Responsible Person	
I assert the following under penalty of perjury, under the laws of the State of	
California:	Responsible Name
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	Company Name
Certificate of Acceptance. I am eligible under Division 3 of the Business and	Company Name
Professions Code in the applicable classification to accept responsibility for the	License No.
system design, construction or installation of features, materials, components, or	
manufactured devices for the scope of work identified on this Certificate of	Title
Acceptance and attest to the declarations in this statement. The information provided on this Certificate of Acceptance substantiates that the construction or	Phone
installation identified on this Certificate of Acceptance complies with the	rione
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	Responsible Signature
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	Date Signed
available with the building permit(s) issued for the building. I understand that a	Date Signed
completed, signed copy of this Certificate of Acceptance shall be posted, or made	
available with the building permit(s) issued for the building and shall be made	
available to the enforcement agency for all applicable inspections, and I will take	
the necessary steps to fulfill this requirement. 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. I will take the necessary	
steps to ensure this requirement.	
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