STATE OF CALIFORNIA

## REFRIGERATED WAREHOUSE AIR COOLED CONDENSER CONTROLS ACCEPTANCE

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CEC-NRCA-PRC-06-F (Revised 01/19)		NIA ENERGY COMMISSION
CERTIFICATE OF ACCEPTANCE		NRCA-PRC-06-F
Refrigerated Warehouse Air Cooled Condenser Controls	Acceptance	(Page 1 of 4)
Project Name:	Enforcement Agency:	Permit Number:
Project Address:	City:	Zip Code:
Compliance Results:	Enforcement Agency Use: Checked by/Da	te

Compliance Results:		e Results:	Enforcement Agency Use: Checked by/Date	
COMPLIES DOES NOT COMPLY		ES DOES NOT COMPLY		
In	<b>Intent:</b> Verify that the air-cooled condenser has ambient dry-bulb following control and fan motor variable speed control			
A. Co	nstruc	ction Inspection (NA7.10.3.2.1)		
	a.	The minimum condensing temperature control setpoint is at or below 70°F		
	b.	The master system controller saturated condensing temperature input is the temperature equivalent reading of the condenser pressure sensor.		
	c.	All drain leg pressure regulator valves are set below the minimum condensing temperature/pressure setpoint.		
	d.	Receiver pressurization valves, such as the outlet pressure regulator (OPR), (if used) are set lower than the drain leg pressure regulator valve setting.		
	e.	All pressure and temperature sensors read accurately		
	f.	Temperature sensor used by the controller is mounted in a location that is not exposed to direct sunlight.		
	g.	All sensor readings used by the condenser controller convert or calculate to the correct conversion units at the controller		
	h.	All condenser fan motors are operational and rotating in th	e correct direction.	
	i.	All condenser fan speed controls are operational and connected to condenser fan motors to operate in unison the fans serving a common condenser loop.		

O Does Not Comply

All speed controls are in "auto" mode.

Construction Inspection Compliance:

Complies

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B. Functional Testing (NA7.10.3.2.2)	
The system cooling load must be sufficiently high to run the test, (i.e. with a condensing temperature above the minimum SC	T set point). The
loads can often be increased somewhat as required to perform the Functional Testing.	
Step 1: Override any conflicting controls before performing functional tests.	
Step 2: Document the current operating conditions and current set points.	
a. Current ambient dry-bulb temperature (DBT).	°F
b. Current saturated condensing temperature (SCT) or condensing pressure.	°F psig
c. Calculate the actual condenser temperature difference (Actual TD) [SCT – DBT].	°F
d. Current SCT or pressure control set point.	°F psig
e. Current condenser control temperature difference (Control TD).	°F
Step 3: 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 ! condenser fan speed to normalize.	minutes for
<b>Step 4:</b> Using the control system, raise the test set point in 1°F increments until the condenser fan control modulates to minis speed.	mum fan motor
a. Fan motor speed decrease.	P / F
b. 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).	P / F
c. Record the minimum fan motor control speed. Enter with units as rpm, Hertz, or percent of full speed.	
Step 5: Using the control system, lower the test set point in 1°F increments until the condenser fan control modulates to incresseed.	ease fan motor
a. Fan motor speed increases.	P/F
b. 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).	P/F
Step 6: Verify override minimum SCT set point.	
a. Record the current minimum condensing temperature set point.	°F
Using the control system, change the minimum SCT set point to a value greater than the current operating SCT.	•
b. Condenser fan controls modulate to decrease capacity.	P/F
c. All condenser fans serving common condenser loop modulate in unison.	P/F
d. Condenser fan controls stabilize within a 5 minute period.	P/F
Step 7: Restore the Control TD and the minimum SCT set point to the values recorded Step #2e and #6a.	P/F
Step 8: Restore any controls disabled in Step #1.	P F I
Functional Testing Compliance:   Complies   Does Not Comply	

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CERTIFICATE OF ACCEPTANCE			NRCA-PRC-06-F
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Project Name:	Enforcement	Enforcement Agency:	
Project Address:	City:		Zip Code:
DOCUMENTATION AUTHOR'S DECLARATION	STATEMENT		
1. I certify that this Certificate of Acceptance	e documentation is accura	te and complete.	
Documentation Author Name:		Documentation Author Signature	2:
Documentation Author Company Name:		Date Signed:	
Address:		CEA/HERS/ATT Certification Identification (If applicable):	
City/State/Zip:		Phone:	
FIELD TECHNICIAN'S DECLARATION STATEME	NT		
<ol> <li>I certify the following under penalty of perjund.</li> <li>The information provided on this Certification.</li> <li>I am the person who performed the access.</li> <li>The construction or installation identified indicated in the plans and specifications requirements and procedures specified in the Certificate (s) of been completed and signed by the resposits of the building.</li> <li>Field Technician Name:</li> </ol>	tate of Acceptance is true a eptance verification reported d on this Certificate of Acce approved by the enforcem n Reference Nonresidentia of Installation for the consti	and correct.  ed on this Certificate of Acce eptance complies with the a ent agency, and conforms t al Appendix NA7.  ruction or installation identi	pplicable acceptance requirements o the applicable acceptance fied on this Certificate of Acceptance has
Address:		CEA/HERS/ATT Certification Identification (If applicable):	
City/State/Zip:		Phone:	Date Signed:
RESPONSIBLE PERSON'S DECLARATION STATE		1	
<ol> <li>I certify the following under penalty of perjury</li> <li>I am the Field Technician, or the Field Technician</li> <li>I am eligible under Division 3 of the Busin system design, construction or installation identified on this Certificate of Acceptance</li> <li>The information provided on this Certificate of Acceptance complies with the enforcement agency, and conforms to the Appendix NA7.</li> <li>I have confirmed that the Certificate(s) or</li> </ol>	chnician is acting on my be of Acceptance. ness and Professions Code on of features, materials, co ce and attest to the declar- cate of Acceptance substan the acceptance requirement and applicable acceptance re	in the applicable classification omponents, or manufacture ations in this statement (res atiates that the construction ints indicated in the plans an equirements and procedures	on to accept responsibility for the ed devices for the scope of work sponsible acceptance person). or installation identified on this d specifications approved by the
been completed and is posted or made a  5. I will ensure that a completed, signed copermit(s) issued for the building, and ma	available with the building py of this Certificate of Acc	permit(s) issued for the build ceptance shall be posted, or	ding. made available with the building

signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Acceptance Person Name:	Responsible Acceptance Person Signature:		
Responsible Acceptance Person Company Name:	Position with Company (Title):		
Address:	CSLB License:		
City/State/Zip:	Phone:	Date Signed:	