OUTDOOR AIR ACCEPTANCE

CERTIFICATE OF ACCEPTANCE	NRCA-MCH-02-A
Outdoor Air Acceptance	(Page 1 of 3)

Project Name:	Enforcement Agency:	Permit Number:
Project Address:	City:	Zip Code:
System Name or Identification/Tag:	System Location or Area Served:	

Compliance Results: ◯ Complies ◯ Does NOT Comply	Enforcement Agency Use: Initial/Date

Intent:	Verify measured outside airflow sensor reading is within 10% of the total required outside airflow. Required for all newly installed HVAC units. Reference NRCC-MCH-E. Submit one Certificate of Acceptance for each system that must demonstrate compliance. NRCA-MCH-02-A can be performed in conjunction with NRCA-MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.

A. Construction Inspection

Building:	Floor:	Room/Area/Zone:	Control/System:

Prior to Functional Testing, verify and document all of the following					
1.	Required Documentation (all must be checked).				
☐	a.	NRCC-MCH-E as approved by the authority having jurisdiction. (§10-103(a)2A)			
2.	System type –Select either Constant Air Volume (CAV) or Variable Air Volume (VAV) below:				
◯	a.	**VAV only**:			
		i.	Outside airflow is either factory calibrated or field calibrated (check one of the following).		
		◯	A	factory calibrated. (NA 7.5.1.1.1 (a))	
		◯	B	field calibrated. (NA 7.5.1.1.1(b))	
		ii.	Damper Control (check all of the following):		
		☐	A	Dynamic damper control is being used to control outside air. (NA 7.5.1.1.1 (c))	
		☐	B	Dynamic damper is NOT a fixed minimum damper. (NA 7.5.1.1.1, §120.1(f)2)	
		iii.	Identify the dynamic control being utilized to control outside air. (NA 7.5.1.1.1 (d))		
		☐	Describe control:		
◯	b.	**CAV only** (check all of the following):			
	☐	i.	System is designed to provide a fixed minimum outside air when the unit is on. (NA 7.5.1.2.1 (a))		
	☐	ii.	Minimum position is marked on the outside air damper. (NA 7.5.1.2.1 (d))		
	☐	iii.	The system has means of maintaining the minimum outdoor air damper position. (NA 7.5.1.2.1 (e))		
3.	Method of delivering outside air to the heating or cooling unit (select one of the following): (NA 7.5.1.1.1 (e), NA 7.5.1.2.1 (b))				
◯	a.	**Return Plenum Ducted**: Confirm that outside air is ducted to within 5 or 15 ft. (with direction and velocity requirement) of the heating or cooling unit as specified by NRCC-MCH-E, Section H. (§120.1(e)1 &2)			
◯	b.	**Direct Unit Ducted**. Return air plenum is NOT used to distribute outside air to the heating or cooling unit. (i.e. outside air is ducted directly to the unit, outside air is provided independent of the unit, or economizer).			
4.	Pre-occupancy Purge				
☐	a.	Verify that the pre-occupancy purge has been programmed for the 1-hour period immediately before the building is normally occupied to provide ventilation as indicated on NRCC-MCH-E. (VAV - NA 7.5.1.1.1 (f) , CAV - NA 7.5.1.2.1 (c), §120.1(d)2)			
Construction Inspection Compliance Results: ◯ Complies ◯ Does NOT Comply					

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B. Functional Testing

Building:	Floor:	Room/Area/Zone:	Control/System:

Steps:			**CAV**	**VAV**
1	Disable demand control ventilation (if applicable)	☐ Check if NA	☐	☐
2	Verify unit is not in economizer mode during test (economizer disabled) (VAV - NA 7.5.1.1.2 Step 1, CAV – NA 7.5.1.2.2 Step 1)	☐ Check if NA	☐	☐
3	CAV and VAV testing at full supply airflow			
a.	Adjust supply air to achieve design airflow or maximum airflow at full cooling. (NA 7.5.1.1.2 Step 2)			☐
b.	Measured outdoor airflow reading (cfm) (VAV - NA 7.5.1.1.2 Step 2a, CAV – NA 7.5.1.2.2 Step 2a)		cfm	cfm
c.	Required outdoor airflow (cfm) (refer to NRCC-MCH-E, Section J).		cfm	cfm
d.	Time for outside air damper to stabilize after full supply airflow is achieved (minutes): (NA 7.5.1.1.2 Step 2b)			min
4	VAV testing at reduced supply airflow			
a.	Adjust supply airflow to either the sum of the minimum zone airflows, full heating, or 30% of the total design airflow. (NA 7.5.1.1.2 Step 3)			☐
b.	Measured outdoor airflow reading (cfm). [NA 7.5.1.1.2 Step 3a]			cfm
c.	Required outdoor airflow (cfm) (refer to NRCC-MCH-E, Section J).			cfm
d.	Time for outside air damper to stabilize after reduced supply airflow is achieved (minutes): (NA 7.5.1.1.2 Step 3b)			min
5	Return to initial conditions (NA 7.5.1.1.2 Step 4)		☐	☐
6	Calculations			
Determine Percent Outside Air at full supply airflow ($\%OA_{FA}$) for Step 3. (§120.1(f)1)				
a.	$\%OA_{FA}$ = Measured outdoor airflow reading /Required outdoor airflow. 100 x (Step3b/Step3c)		%	%
b.	$\%OA_{FA}$ is within 10% of design Outside Air. ($90\% \le \%OA_{FA} \le 110\%$)		◯ P / F ◯	◯ P / F ◯
c.	Outside air damper position stabilizes within 5 minutes. (Step 3d < 5 minutes)			◯ P / F ◯
VAV only: Determine Percent Outside Air at reduced supply airflow ($\%OA_{RA}$) for Step 4. (§120.1(f)2)				
a.	$\%OA_{RA}$ = Measured outdoor airflow reading /Required outdoor airflow reading. 100 x (Step4b/Step4c)			%
b.	$\%OA_{RA}$ is within 10% of design Outside Air. ($90\% \le \%OA_{RA} \le 110\%$)			◯ P / F ◯
c.	Outside air damper position stabilizes within 5 minutes. (Step 4d < 5 minutes)			◯ P / F ◯
Functional Testing Compliance Results: ◯ Complies ◯ Does NOT Comply				

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Acceptance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Documentation Author Company Name:	Date Signed:
Address:	ATT Certification Identification (If applicable):
City/State/Zip:	Phone:

FIELD TECHNICIAN'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Acceptance is true and correct.
2. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician).
3. 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.
4. 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.

Field Technician Name:	Field Technician Signature:	
Field Technician Company Name:	Position with Company (Title):	
Address:	ATT Certification Identification (if applicable):	
City/State/Zip:	Phone:	Date Signed:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. 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.
2. 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).
3. 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.
4. 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.
5. I will ensure 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. 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.

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: