

# Mechanical Systems

NRCC-MCH-E (Created 5/20)

Follow along with how to fill out this form for an HVAC Alteration here:  
[youtube.com/watch?v=9FRshHxhUBI](https://www.youtube.com/watch?v=9FRshHxhUBI)

Nonresidential forms can be found here: [eneravcodeace.com/nonresidentialforms](http://eneravcodeace.com/nonresidentialforms)

Before starting the NRCC-MCH-E on a project, make sure to use a compatible PDF viewer, such as Adobe Acrobat Reader 2017.

CALIFORNIA ENERGY COMMISSION



## CERTIFICATE OF COMPLIANCE

NRCC-MCH-E

This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

Project Name: Simple HVAC change out

Report Page:

Page 1 of 11

Project Address: 12345 Any Pl

Date Prepared:

2020-04-06

### A. GENERAL INFORMATION

Hover over these ? in the NRCC dynamic form to get helpful tips when filling out the form. → ?

01	Project Location (city)	San Jose	04	Total Conditioned Floor Area	1,500
02	Climate Zone	4	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1
<input type="checkbox"/>	Office (B)	<input checked="" type="checkbox"/>	Retail (M)	<input type="checkbox"/>	Non-refrigerated Warehouse (S)
<input type="checkbox"/>	Hotel/ Motel Guest Rooms (R-1)	<input type="checkbox"/>	School (F)	<input type="checkbox"/>	Healthcare Facility (H)
<input type="checkbox"/>	High-Rise Residential (R-2/R-3)	<input type="checkbox"/>	Relocatable Class Bldg (E)	<input type="checkbox"/>	Other (Write In):

If the occupancy category is unknown, look up in California's Building Code or write in the type in the "other" box:  
[codes.iccsafe.org/content/CABCV12019/chapter-3-occupancy-classification-and-use](https://codes.iccsafe.org/content/CABCV12019/chapter-3-occupancy-classification-and-use)

<sup>1</sup> FOOTNOTES: Climate zone can be determined on the California Energy Commission's website at [http://www.energy.ca.gov/maps/renewable/building\\_climate\\_zones.html](http://www.energy.ca.gov/maps/renewable/building_climate_zones.html)

### B. PROJECT SCOPE

Selections in table B will trigger other applicable tables throughout this form.

Table Instructions: Include any mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

#### My project consists of (check all that apply)

01	02	03
Air System(s)	Wet System Components	Dry System Components
<input checked="" type="checkbox"/> Heating Air System	<input type="checkbox"/> Water Economizer	<input checked="" type="checkbox"/> Air Economizer
<input checked="" type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
<input type="checkbox"/> Mechanical Controls	<input type="checkbox"/> Hydronic System Piping	<input checked="" type="checkbox"/> Fan Systems
<input checked="" type="checkbox"/> Mechanical Controls	<input type="checkbox"/> Cooling Towers	<input checked="" type="checkbox"/> Ductwork
	<input type="checkbox"/> Chillers	<input checked="" type="checkbox"/> Ventilation
	<input type="checkbox"/> Boilers	<input type="checkbox"/> Zonal Systems/ Terminal Boxes

Even though in this scenario, ductwork is not being added or altered, "Ductwork" should still be selected for all projects with mechanical equipment changes to verify duct leakage testing is not required.

### C. COMPLIANCE RESULTS

Table C will be consistent on all forms and shows what the compliance results are as the form is filled out.

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09	
System Summary §110.1, §110.2, §140.4 (See Table F)	AND Pumps §140.4(k) (See Table G)	AND Fans/ Economizers §140.4(c), §140.4(e) (See Table H)	AND System Controls §110.2, §120.2, §140.4(f) (See Table I)	AND Ventilation §120.1 (See Table J)	AND Terminal Box Controls §140.4(d) (See Table K)	AND Distribution §120.3, §140.4(l) (See Table L)	AND Cooling Towers §110.2(e)2 (See Table M)	<b>Compliance Results</b>	
Yes	AND	AND	Yes	AND	Yes	AND	Yes	<b>COMPLIES</b>	
Grey cells show that items were not triggered by the selections in Table B.								<b>Mandatory Measures Compliance (See Table Q for Details)</b>	<b>COMPLIES</b>

Compliance at the project level must be verified in column 9 at the end of completing this form in order to comply with the energy code. All compliance categories (01-08) must either = "Yes" or be grayed out for project level compliance.

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## D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Selections made in Table O have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

## E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

## F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table Instructions: Complete the following equipment schedules to show compliance with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b)2 for alterations.

### Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

For an Alteration, these sections will likely be based off of the system selection rather than the mechanical schedule.

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per <a href="#">Tables 110.2</a>	Equipment Type per <a href="#">Tables 110.2</a> & <a href="#">Title 20</a>	Smallest Size Available <sup>1</sup> <a href="#">§140.4(a)</a>	Equipment Sizing per Mechanical Schedule (Btu/h) <a href="#">§140.4 (a&amp;b)</a>						
				Heating Output <sup>2,3</sup>			Cooling Output <sup>2,3</sup>		Load Calculations <sup>3,4</sup>	
				Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
RTU1	Furnace + AC	AC, air cooled, single pkg + warm-air central furnace, gas-fired	NA: Altered per §141.0(b)2E	22.4	54.4	0	48.6	58.5	22.4	48.6

N.A (not applicable) may be presented as a user selection within the drop-down options.

Be sure to input the correct units.

Reset

Add Row

Remove Last

<sup>1</sup> FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per [§140.4\(a\)](#). Healthcare facilities are exempted.

<sup>2</sup> It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.

<sup>3</sup> If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.

<sup>4</sup> Authority Having Jurisdiction may ask for load calculations used for compliance per [§140.4\(b\)](#).

Input here is based on CEC approved load calculation methods.

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**Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))**

01	02	03	04	05	06	07	08	09
Name or Item Tag	Size Category (Btu/h)	Heating Mode			Cooling Mode			
		Rating Condition (°F)	Efficiency Unit	Min Efficiency Required per <a href="#">Tables 110.2/Title 20</a>	Design Efficiency	Efficiency Unit	Min Efficiency Required per <a href="#">Tables 110.2/Title 20</a>	Design Efficiency

Table Continued

RTU1	<65kBtuh cooling/ <225kBtuh heating	If you are unsure about where a requirement is in the Energy Code, look for a referenced section with a link to verify.	AFUE	0.8	0.81	EER	11	11
							SEER	14

Check back to table C to see if table F complies!

Reset

**G. PUMPS**

This Section Does Not Apply

**H. FAN SYSTEMS & AIR ECONOMIZERS**

Whether an economizer is Prescriptively required is dependent on the type of system and the cooling capacity.

Table Instructions: Complete the following Table for fan systems to demonstrate compliance with prescriptive requirements found in [§140.4\(c\)](#), [§140.4\(e\)](#) and [§140.4\(m\)](#). First document the system details, then add fans within that system to document compliance with fan power requirements. Fan systems serving healthcare facilities, or those serving only process loads, are exempt from these requirements and do not need to be included in Table H.

System Name:	RTU1	Economizer: <sup>1</sup>	Differential Temperature	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit <sup>2</sup>	Design HP	Fan Power Pressure Drop Adjustment - <a href="#">Table 140.4-B</a>	
						Device	Design Airflow through Device (CFM)
Fan	Supply	1	2,000	Nameplate HP	1.5		
						Calculated Adjustment (in H <sub>2</sub> O)	
						Add Pressure Drop Adj. Device	Remove Last Pressure Drop Adj. Device
						Add Fan to System	Remove Last Fan
Total System Design Supply Airflow (CFM):		2,000	Total System Design (B)HP:		1.5	Maximum System Fan Power (B)HP:	

Check back to table C to see if table F complies!

Reset

Add System

Remove Last

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<sup>1</sup> FOOTNOTE: Computer room economizers must meet requirements of §140.9(a) and will be documented on the NRCC-PRC-E document.  
<sup>2</sup> The unit used for HP must be consistent for all fans within a system.


**I. SYSTEM CONTROLS** Inputs are based on what the project type is and in the case of an Alteration, be sure to select the appropriate drop down. 

Table Instructions: Complete the following Table to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	06	07	08	09	
System Name	System Zoning	Conditioned Floor Area Being Served (ft <sup>2</sup> )	Thermostats §110.2(b) & (c) <sup>1</sup> , §120.2(a) or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(g)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
RTU1	single zone	NA: Altered per §141.0(b) 2E	Setback + DR Tstat per §110.12	NA: 7 day per §120.2(e)1	NA: Single Zone	DR Tstat per §110.12	NA: Single Zone	NA: Alteration project

Be sure to check where the project can take advantage of Not Applicable sections.

<sup>1</sup> FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.  
 \* NOTES: Controls with a \* require a note in the space below explaining how compliance is achieved.  
 EX: System 1: SA Temp Reset: Exempt because zones compliant with §140.4(d); EXCEPTION 1 to §140.4(f)

Check back to table C to see if table I complies!

Reset
Add Row
Remove Last

**J. VENTILATION AND INDOOR AIR QUALITY** 

Table Instructions: Complete the following Table to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	<input type="checkbox"/>	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	<input type="checkbox"/>	Check this box if the project includes new or altered high-rise residential dwelling units.
03	<input type="checkbox"/>	Check the box if the project is using natural ventilation in any spaces to meet required ventilation rates per §120.1(c)2.

Table Continued

This form allows the project to separately attach ventilation calculations or to fill the calculations out in this form. If you decide to use table J, compliance can easily be verified and you are less likely to receive comments back from plans examiners.

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Table Continued

After filling in all occupancy types and systems, be sure to come back to check the system design OA cfm entered meets the minimum cfm required in row 17.

Nonresidential and Hotel/ Motel Ventilation Systems											
04			05			06			07		
System Name:		RTU1	System Design OA CFM Air Flow <sup>1</sup> : 345			System Design Transfer Air CFM: 0			Air Filtration per §120.1(c) and §141.0(b)2 <sup>2</sup> Provided per §120.1(c) (NR & Hotel/ Motel)		
08	09	10	11	12	13	14	15	16			
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c)3 <sup>3</sup>					Exh. Vent. per §120.1(c)4			DCV or Occupant Sensor Controls per §120.1(d)3, §120.1(d)5 & §120.2(e)3 <sup>6</sup>		
	Occupancy Type <sup>4</sup>	Conditioned Floor Area (ft <sup>2</sup> )	# of showerheads/toilets	# of people <sup>5</sup>	Required Min OA CFM	Required Minimum CFM	Provided per Design CFM				
Retail	Retail sales	1,200	Minimum OA requirements are auto-populated here (J.13) based on the conditioned floor area and the ventilation rate which is determined by the occupancy type in J.09.		300	In a high density space type like Retail, demand control ventilation is required. Use the hyper-linked Energy Code sections at the top of the column to find out if DCV or occupancy sensors are required		DCV	Provided per §120.1(d)4		
Storeroom	Warehouse	240			36			DCV	NA: Not required per §120.1(d)3		
								Occ Sensor	NA: Not required space type		
Restroom	All others	60			9			DCV	NA: Not required per §120.1(d)3		
								Occ Sensor	NA: Not required space type		
								Reset	Add Occupancy Type	Remove Last	
17	Total System Required Min OA CFM			345	18	Ventilation for this System Complies?			Yes		
								Reset	Add System	Remove Last	

<sup>1</sup> FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system.

<sup>2</sup> Air filtration requirements apply to the following three system types per §120.1(c)1A: space conditioning systems utilizing ducts to supply air; ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery providing outside air to occupiable space.

<sup>3</sup> Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.

Check back to table C to see if table J complies!

If your system serves multiple occupancy types use the "Add Occupancy Type" button for each occupancy that the ventilation system serves. If you have more than one ventilation system, use the "Add System" button for each ventilation system within the projects scope.

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<sup>4</sup> See [Standards Tables 120.1-A and 120.1-B](#).<sup>5</sup> For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.<sup>6</sup> [§120.2\(e\)3](#) requires systems serving rooms that are required by [§130.1\(c\)](#) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft<sup>2</sup> or smaller, multipurpose rooms less than 1,000ft<sup>2</sup>, classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by [§130.1\(c\)](#).**K. TERMINAL BOX CONTROLS***This Section Does Not Apply***L. DISTRIBUTION (DUCTWORK AND PIPING)**

For a project scope where no ductwork is added or altered, that still needs to be indicated in this table.

Table Instructions: Complete the following tables to show compliance with mandatory pipe insulation requirements found in [§120.3](#) and prescriptive requirements found in [§140.4\(l\)](#) for duct leakage testing.**Duct Leakage Sealing**

The answers to the questions below apply to the following duct system(s):		RTU1	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities.		
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft <sup>2</sup> of conditioned floor area.		
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:		
		<input type="checkbox"/>	Outdoors	
		<input type="checkbox"/>	In a space directly under a roof that has a U-factor greater than the U-factor of the ceiling, or if the roof does not meet the requirements of <a href="#">§140.3(a)1B</a> or if the roof has fixed vents or openings to the outside/ unconditioned spaces	
		<input type="checkbox"/>	In an unconditioned crawlspace	
		<input type="checkbox"/>	In other unconditioned spaces	
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.		
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the <a href="#">Reference Nonresidential Appendix NA2</a> .		
17		Duct system shall be sealed in accordance with the California Mechanical Code.		

These questions are trying to find out if duct leakage testing is required.

Add Duct System(s)

Remove Last

**M. COOLING TOWERS***This Section Does Not Apply*

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**N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Check to make sure the inputs made in this form have triggered the correct forms to be filled out.



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YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>		NRCI-MCH-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>

**O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at [https://www.energy.ca.gov/title24/2019standards/2019\\_compliance\\_documents/Nonresidential\\_Documents/NRCA/](https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/)

YES	NO	Form/Title	Field Inspector	
			Pass	Fail

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<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. <i>Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-03-A Constant Volume Single Zone HVAC <b>NOTE:</b> This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-04-A Air Distribution Duct Leakage	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-05-A Air Economizer Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-08-A Valve Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-11-A Automatic Demand Shed Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance <b>NOTE:</b> This form does not automatically move to "Yes". If Distributed Energy Storage DX AC Systems are included in the scope, permit applicant should move this form to "Yes".	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance <b>NOTE:</b> This form does not automatically move to "Yes". If Chilled Water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External Melt, Ice Harvester, Brine, Ice-Slurry, Eutectic Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapsulated (Ice Ball) Systems are included in the scope, permit applicant should move this form to "Yes".	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-16-A Supply Air Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-17-A Condenser Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-18 Energy Management Control Systems	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-19 Occupancy Sensor Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-20 Multi-Family Ventilation	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-21 Multi-Family Envelope Leakage	<input type="checkbox"/>	<input type="checkbox"/>

In some cases like this one, your NRCC may incorrectly indicate Yes/No. Be sure to verify all the forms that are required and switch the selection if necessary.



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**P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION**

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YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-04-H Duct Leakage Test <i>NOTE: Must be completed by a HERS Rater</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-24 Enclosure Air Leakage Worksheet <i>NOTE: Must be completed by a HERS Rater</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-27 High-rise Residential <i>NOTE: Must be completed by a HERS Rater</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-32 Local Mechanical Exhaust <i>NOTE: Must be completed by a HERS Rater</i>	<input type="checkbox"/>	<input type="checkbox"/>

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**Q. MANDATORY MEASURES DOCUMENTATION LOCATION**

Table Q is required for compliance and will help the plans examiner to find where the mandatory measures are located in the submitted documents.



Table Instructions: Indicate where mandatory measures are documented in the plan set or construction documentation. For any mandatory measures that do not apply, mark the plan sheet or construction document location as "N/A", any active cells that are left blank will result in non-compliance in Table C.

01		02	
		Plan sheet or construction document location	
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block:	No ←	For an HVAC Alteration with no drawings, mark No here.	
03		04	
Mandatory Measure		Plan sheet or construction document location	
Heating Equipment Efficiency per <a href="#">§110.1</a>		Mfg. spec sheet	
Cooling Equipment Efficiency per <a href="#">§110.1</a>		Mfg. spec sheet	
Furnace Standby Loss Control per <a href="#">§110.2(d)</a>		NA: <225 kBtuh	
Duct Insulation per <a href="#">§120.4</a>		NA: No altered ducts	
Heating Hot Water Equipment Efficiency per <a href="#">§110.1</a>		NA	
Cooling Chilled and Condenser Water Equipment Efficiency per <a href="#">§110.1</a>		NA	
Open and Closed Circuit Cooling Towers conductivity of flow-based controls per <a href="#">§110.2(e)1</a>		NA	
Open and Closed Circuit Cooling Towers Flow Meter with analog output per <a href="#">§110.2(e)3</a>		NA	
Open and Closed Circuit Cooling Towers Overflow Alarm per <a href="#">§110.2(e)4</a>		NA	
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators per <a href="#">§110.2(e)5</a>		NA	
Pipe Insulation per <a href="#">§120.3(b)</a>		NA	
Combustion air shutoff, combustion air fan controls and stack design and controls for boilers per <a href="#">§120.9</a>		NA	
Heat Pump with Supplementary Electric Resistance Heater Controls per <a href="#">§110.2(b)</a>		NA	
The air duct and plenum system is designed per <a href="#">§120.4(a)-(f)</a>		NA	
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		NA	

Final check back to table C to see if the project complies!

**Mechanical Systems**

NRCC-MCH-E (Created 5/20)

Print to PDF to then sign a static copy of the form and send to the client. Be sure to save a copy of the dynamic form if any edits need to be made.

CALIFORNIA ENERGY COMMISSION



## CERTIFICATE OF COMPLIANCE

NRCC-MCH-E

Project Name: Simple HVAC change out

Report Page:

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Project Address: 12345 Any Pl

Date Prepared:

2020-04-06

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

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

Documentation Author Name: Brian Selby

Documentation Author Signature:

Company:

Signature Date:

Address:

CEA/ HERS Certification Identification (if applicable):

City/State/Zip:

Phone:

**RESPONSIBLE PERSON'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 Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be 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 completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:

Responsible Designer Signature:

Company :

Date Signed:

Address:

License:

City/State/Zip:

Phone:

For more training on the NRCC forms, visit Energy Code Ace for Decoding Talks:

2019 Dynamic Form Introduction Series: [youtube.com/playlist?list=PLVH9EjkDaO5IMvxfVJg2oDwq2B3wlJTQ1](https://youtube.com/playlist?list=PLVH9EjkDaO5IMvxfVJg2oDwq2B3wlJTQ1)

Decoding NRCC: Let's Talk 2019 Nonresidential Dynamic Forms Handout and Recording: [energycodeace.com/content/training-ace/courseId=35705](https://energycodeace.com/content/training-ace/courseId=35705)