REQUIREMENTS FOR PACKAGED SINGLE ZONE UNITS

CERTIFICATE OF COMPLIANCE	NRCC-MCH-05-E
Requirements for Packaged Single-Zone Units	(Page 1 of 2)
Project Name:	Date Prepared:

Equipment Tag(s)[1]							
MANDATORY MEASURES	***T-24 Sections***	***Requirement***[3]	***As Scheduled***[3]	***Requirement***[3]	***As Scheduled***[3]	***Requirement***[3]	***As Scheduled***[3]
Heating Equipment Efficiency[4]	110.1 or 110.2(a)						
Cooling Equipment Efficiency[4]	110.1 or 110.2(a)						
Thermostats[5]	110.2(b), 110.2(c)						
Furnace Standby Loss Control[6]	110.2(d)						
Low Leakage AHU	110.2(f)						
Ventilation[7]	120.1(b)						
Demand Control Ventilation[8]	120.1(c)4						
Occupant Sensor Ventilation Control[8]	120.1(c)5, 120.2(e)3						
Shutoff and Reset Controls[9]	120.2(e)						
Outdoor Air and Exhaust Damper Control	120.2(f)						
Automatic Demand Shed Controls	120.2(h)						
Economizer FDD	120.2(i)						
Duct Insulation	120.4						
PRESCRIPTIVE MEASURES							
Equipment is sized in conformance with 140.4 (a & b)	140.4(a & b)						
Economizer	140.4(e)						
Electric Resistance Heating[10]	140.4(g)						
Duct Leakage Sealing and Testing.[11]	140.4(l)						

Notes:

1. *Provide equipment tags (e.g. AC1 or AC1 to 10). Multiple units of the same make and model with the same application and accessories can be grouped together.*
2. *Enter the following information as appropriate: Unit Manufacturer; Unit Model Number (including all accessories); Description of the unit (e.g. gas-pack or heat pump; rated heating capacity (enter "N/A" if no heating); and, rated cooling capacity (enter "N/A" if no cooling). For unit capacities include the units (e.g. kBtuh or tons).*
3. *For each requirement, enter the minimum requirement from the Standard In the left column (under "Standard Requirement"). In the right column (under "As Scheduled") enter the value for the units as specified.*
4. *Where there is more than one requirement (e.g. full and part load efficiency) enter both with the appropriate labels (e.g. COP and IEER).*
5. *In the left column identify the thermostatic requirements from the standard (e.g. programmable setback thermostat or heat pump with electric heat), . In the right column indicate the capabilities of the thermostat as scheduled.*
6. *If the unit has a furnace which is rated at >=225,000 Btuh of capacity, indicate the rated standby loss and ignition source (e.g. IID). If there is no furnace or the unit is rated for <225,000 Btuh indicate "N/A".*
7. *In the left column, enter both the required ventilation value from Table 120.1A and for the number of occupants times 15 cfm/person. In the right column enter the actual minimum ventilation as scheduled. If the space is naturally ventilated enter "N/A" in the left column and "the space is naturally ventilated" in the right column.*
8. *If the space is required to have either DCV or Occupant Sensor Ventilation Control indicate "required" in the left column (otherwise indicate "N/A" in the left column). If either DCV or Occupant Sensor Ventilation Control is provided indicate "provided" in the right column (otherwise indicate "N/A" in the right column)*
9. *In the left column indicate the required time controls from the standard. In the right column identify the device that provides this functionality (e.g. EMCS or programmable timeclock).*
10. *Enter N/A if there is no electric heating. If the system has electric heating indicate which exception to 140.4(g) applies.*
11. *If duct leakage sealing and testing is required, a **MCH-04-A** form must be submitted.*

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Project Name:	Date Prepared:

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	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:

NRCC-MCH-05-E User Instructions

Mechanical Mandatory and Prescriptive Measures

The mandatory measures and prescriptive measures must be incorporated into the construction documents. Left column, NRCC-MCH-05-E list the measures and the section numbers in the Building Efficiency Standards where the requirements for those measures are specified. The columns labeled *Indicate Page Reference on Plans or Schedule* are for designating the specific sheet on the plans or specification section(s) where the measures used to comply with the Standards are documented. As noted below the table, a reference to specifications must include both a specification section and paragraph number. The remaining cells in this form are organized with a separate column for each system (or groups of similar systems). In each column, the documentation author shall identify where each of the required measures are specified on the plans or in the project specifications. Where a measure is not applicable to the specific system, the letters "NA" (for not applicable) are placed in the cell. Groups of similar systems can be entered in a single column where appropriate.

In the plans or specifications where the specific details of compliance are shown, the designer may use whatever format is most appropriate for specifying the required measures. This will generally take one of several forms:

1. The material is incorporated into an equipment schedule on the mechanical plans. This includes items like equipment efficiencies, capacities (desired equipment size and calculated required capacity) and some features like air-side economizers.
2. The material appears on the plans in a general notes block. Examples of these are the "mandatory measures block" that was used in the project.
3. The material is incorporated into the specifications. For most control measures this will be in the sequences of operations under the controls specification section. For equipment features like tower flow turndown or heat pump thermostats this will typically be in either the equipment schedules or the specification sections for the specific piece of equipment. Where specifications are used, the documentation must be specific enough to point the code official to the page (or specific paragraph) where the feature is specified.

The information on this form may be incorporated into the plans or on a spreadsheet.

Item or System Tags

At the start of each column identify each air-side unit or groups of similar units using the Items or System Tag(s) from the plans or specifications.

Mandatory Measures

For each item below, identify the plan or specification section where the required feature is specified.

1. HEATING EQUIPMENT EFFICIENCY – This is the minimum code-mandated heating equipment efficiency found in §110.1 or §110.2(a). Where appropriate, both full- and part-load efficiency must be identified.
2. COOLING EQUIPMENT EFFICIENCY – This is the minimum code-mandated cooling equipment efficiency found in §110.1 or §110.2(a). Note both the full- and part-load efficiencies must be identified.
3. HVAC OR HEAT PUMP THERMOSTAT – Heat pump systems indicate the controls that minimize the use of electric resistance heat as required by §110.2(b), §110.2(c). The electric resistance heat can only be used for defrost and as a second stage of heating.
4. FURNACE STANDBY LOSS CONTROLS – The specified plan sheet must indicate the furnace control requirements of §110.2(d) (IID and power venting or flue damper for furnaces ≥ 225 MBH input rating) and §110.5(a) (ignition by other than a pilot light).
5. NATURAL VENTILATION – The specifications for operable openings, their control (if appropriate) and location found in §120.1(b). Note this will likely cross reference architectural plans.
6. MINIMUM VENTILATION – The specification for minimum OSA at both the central and zone levels in compliance with §120.1(b).
7. DEMAND CONTROL VENTILATION – If demand control ventilation systems are either required or provided per §120.1(c)4, identify the specifications for the CO_2 sensors and controls.
8. OCCUPANT SENSOR VENTILATION CONTROL – Identify the control specifications for preoccupancy purge per §120.1(c)5 and scheduling control per §120.2(e)3 for each system. This item should be in the control sequences or in the specification for a time clock or programmable thermostat.
9. SHUTOFF AND RESET CONTROLS – If shufoff or reset controls are required per §120.2(e), identify the specifications for these off hour controls. This item should be in the control sequences.

10. OUTDOOR AIR AND EXHAUST DAMPER CONTROL – Identify the specifications for automatic or barometric dampers on OSA and exhaust openings as specified in §120.2(f).
11. AUTOMATIC DEMAND SHED CONTROLS – Identify the specifications for automatic demand shed controls that are required by §120.2(h).
12. ECONOMIZER FDD – Identify the specifications for economizer FDD that are required by §120.2(i).
13. DUCT INSULATION – Identify the specifications for duct insulation greater than or equal to the requirements of §120.4.

Prescriptive Measures

1. CALCULATED COOLING/HEATING CAPACITY – Confirm that the cooling/heating equipment is sized in conformance with §140.4 (a & b).
2. ECONOMIZER – Indicate the specification for an air or water economizer that meets the requirements of §140.4 (e). The specification must include details of the high limit switch for airside economizers. If an economizer is not required, indicate by entering "NA."
3. HEAT AND COOL AIR SUPPLY RESET – Indicate the specification for supply temperature reset controls per §140.4(f). This will typically be a sequence of operation. This control is required for systems that reheat, re-cool, or mix conditioned air streams.
4. ELECTRIC RESISTANCE HEATING – Indicate which of the five exceptions to §140.4(g) applies to the project. For more information, see Section 4.6.2.5.
5. DUCT LEAKAGE SEALING AND TESTING – Indicate the specification for duct leakage testing where required by §140.4(l). Note this only applies to small single units with either horizontal discharge or ducts in un-insulated spaces.

Documentation Author's Declaration Statement

The CERTIFICATE OF COMPLIANCE is signed by both the Documentation Author and the Principal Designer who is responsible for preparation of the plans of building. This latter person is also responsible for the energy compliance documentation, even if the actual work is delegated to a different person acting as Documentation Author. It is necessary that the compliance documentation be consistent with the plans.

DOCUMENTATION AUTHOR is the person who prepared the energy compliance documentation and who signs the Declaration Statement. The person's telephone number is given to facilitate response to any questions that arise. A Documentation Author may have additional certifications such as ~~an~~ Certified Energy Analyst or a Home Energy Rating System certification number. Enter number in the CEA# or HERS# box.

Declaration Statement of Principle Designer

The Declaration Statement is signed by the person responsible for preparation of the plans for the building and the documentation author. This principal designer is also responsible for the energy compliance documentation, even if the actual work is delegated to someone else (the Documentation Author as described above). It is necessary that the compliance documentation be consistent with the plans. The Business and Professions Code governs who is qualified to prepare plans and therefore to sign this statement. See Section 2.2.2 Permit Application for applicable text from the Business and Professions Code.