



## What Is Included in this Fact Sheet?

The 2022 California Building Energy Efficiency Standards (Energy Code or Title 24, Part 6) includes requirements for building components and systems to have acceptance testing. In a few cases, testing and verification can optionally be provided by a Home Energy Rating System (HERS) Rater. This fact sheet describes the testing and verification roles, process, methods and compliance forms for multifamily buildings and for hotels, motels and nonresidential buildings.

## What Is Acceptance Testing?

Acceptance testing includes targeted inspections and functional performance tests that are conducted to ensure that the systems and equipment are installed and operating as designed and in compliance with the Energy Code. When triggered by a project, acceptance testing is a Mandatory requirement.

Acceptance testing does not take the place of test and balance procedures (TAB), and it does not replace commissioning. Acceptance testing is a part of the full commissioning process as shown in the Table 1 comparison.

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How Does Commissioning Differ from Acceptance Testing?		
	Commissioning	Acceptance Testing
<b>Scope</b>	The whole building throughout the entire design and construction process	Specific systems and equipment after installation
<b>Purpose</b>	A systematic quality assurance process to help ensure that systems are designed and operating: <ul style="list-style-type: none"> <li>✦ To meet the owner’s goals</li> <li>✦ In compliance with the Energy Code</li> </ul>	Targeted inspections and functional performance tests to help ensure that equipment is operating: <ul style="list-style-type: none"> <li>✦ As designed</li> <li>✦ In compliance with the Energy Code</li> </ul>
<b>Applicable Projects</b>	Applies to nonresidential New Construction: <ul style="list-style-type: none"> <li>✦ Full commissioning: buildings with ≥ 10,000 ft<sup>2</sup> conditioned space</li> <li>✦ Only the design review phase of commissioning: buildings with &lt; 10,000 ft<sup>2</sup> conditioned space</li> </ul> Does not apply to: <ul style="list-style-type: none"> <li>✦ Healthcare facilities</li> <li>✦ Additions to existing buildings</li> <li>✦ Alterations of existing buildings</li> <li>✦ Multifamily, hotel or motel occupancies</li> </ul>	Applies to specific envelope, lighting and mechanical systems that are: <ul style="list-style-type: none"> <li>✦ New</li> <li>✦ Replacement</li> <li>✦ Altered</li> </ul>
<b>When Performed</b>	Throughout design and construction	During construction after installation
<b>Required Tasks</b>	Activities and documentation at all stages of design and construction, including acceptance testing during construction	Inspections, functional tests, and documentation in accordance with acceptance testing procedures
<b>More Information</b>	See Tables 2 and 3 below ECA Nonresidential Commissioning Fact Sheet: <a href="http://bit.ly/ECA-building-fact-sheets">bit.ly/ECA-building-fact-sheets</a> CEC 2022 Nonresidential and Multifamily Compliance Manual: <a href="http://bit.ly/nonresidential-multifamily-compliance-manual">bit.ly/nonresidential-multifamily-compliance-manual</a> <ul style="list-style-type: none"> <li>✦ Chapter 11.2: [Multifamily Building] Compliance and Enforcement</li> <li>✦ Chapter 13: Building Commissioning Guide</li> <li>✦ Chapter 14: [Nonresidential Building] Acceptance Test Requirements</li> </ul>	

**Table 1.** How Does Commissioning Differ from Acceptance Testing?

## What Forms Are Required?

For each acceptance test, the Energy Code specifies specific forms to be completed for different tests and building types. Table 2 details which type of compliance form is required for each acceptance test. Figure 1 explains the naming conventions for each of these types of forms.

Compliance Forms				
Building Type	Certificates of Compliance	Certificates of Installation	Certificates of Verification	Certificates of Acceptance
Nonresidential	NRCC	NRCI	NRCV	NRCA
Hotels and Motels	NRCC	NRCI	NRCV	NRCA
Multifamily Buildings with ≥ 4 Habitable Stories	NRCC	NRCI	NRCV	NRCA
Multifamily Buildings with ≤ 3 Habitable Stories	LMCC	LMCI	LMCV	NRCA

Table 2. Compliance Forms Required by Building Type

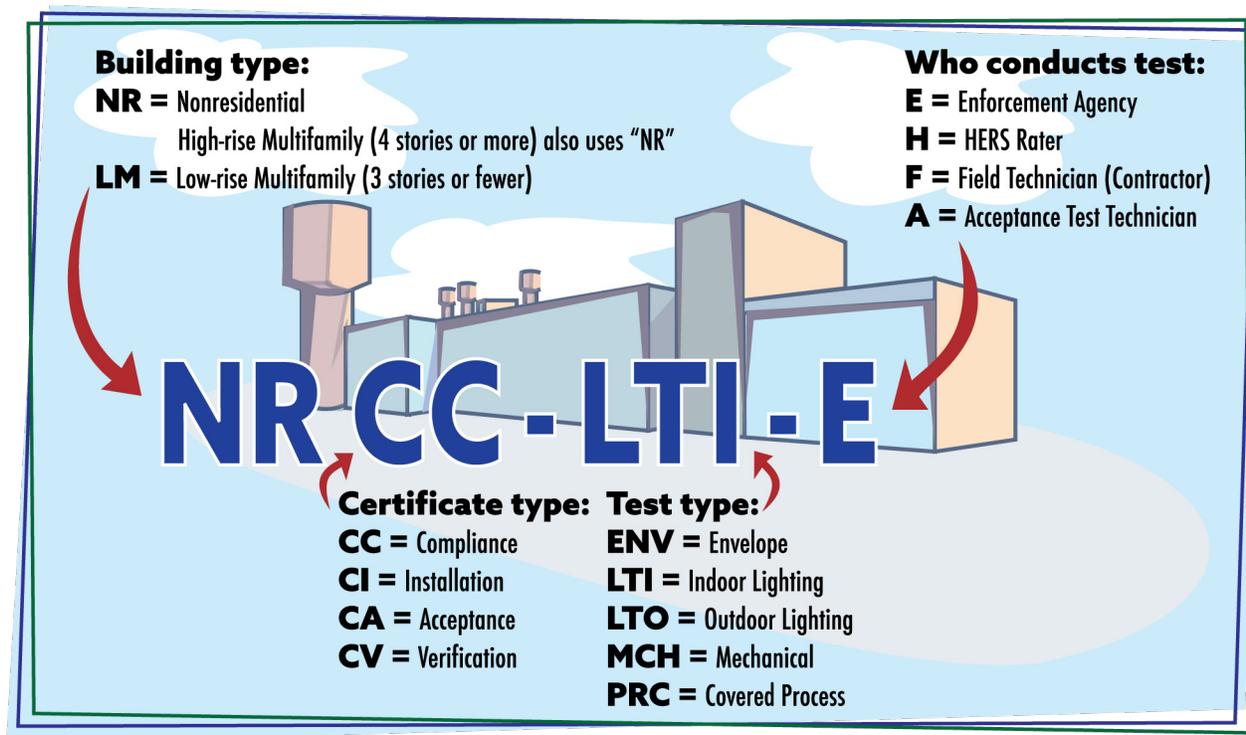


Figure 1. Nonresidential and Low-rise Multifamily Compliance Forms Naming Conventions



## Who Conducts the Tests?

For each acceptance test, the Energy Code specifies who is allowed to conduct the test: a certified acceptance testing technician (ATT), a Home Energy Rating System (HERS) Rater or a field technician. Table 3 compares these three types of acceptance testers. Table 4 details which type of tester is allowed to conduct each acceptance test.

How Do Acceptance Testers Compare?			
	Acceptance Test Technician (ATT)	Home Energy Rating System (HERS) Rater	Field Technician
<b>Project Team or Third Party Status</b>	<p>The ATT sometimes is a member of the project team such as:</p> <ul style="list-style-type: none"> <li>✦ Installing technician</li> <li>✦ Other technician</li> <li>✦ Commissioning agent</li> </ul> <p>The ATT may also be hired from outside of the project team.</p>	<p>The HERS Rater is hired from outside of the project team to provide third-party verification.</p>	<p>The field technician is a member of the project team such as:</p> <ul style="list-style-type: none"> <li>✦ Installing technician</li> <li>✦ Other technician</li> </ul> <p>The field technician may also be hired from outside of the project team.</p>
<b>Qualifications</b>	<p>Two types of ATTs are trained and certified by an Acceptance Test Technician Certification Provider Program (ATTCP):</p> <ul style="list-style-type: none"> <li>✦ Certified Lighting ATT (CLATT)</li> <li>✦ Certified Mechanical ATT (CMATT)</li> </ul> <p>ATTs must show that they have a minimum of 3 years of experience working in the area of testing that they will perform.</p>	<p>HERS Raters are trained and certified by HERS Providers.</p>	<p>A field technician requires:</p> <ul style="list-style-type: none"> <li>✦ Proven field service experience</li> <li>✦ Ability to test and repair equipment to the satisfaction of the enforcement agency</li> </ul> <p>A field technician does not require:</p> <ul style="list-style-type: none"> <li>✦ ATTCP or HERS Provider Certification</li> <li>✦ Contractor's, architect's or engineer's license</li> </ul>
<b>Systems Tested</b>	<p>ATTs are required to perform acceptance testing in nonresidential buildings and multifamily building common use areas for:</p> <ul style="list-style-type: none"> <li>✦ Lighting controls</li> <li>✦ Mechanical systems</li> </ul>	<p>HERS Raters may perform acceptance testing for some mechanical systems including:</p> <ul style="list-style-type: none"> <li>✦ Duct leakage in nonresidential buildings</li> <li>✦ Dwelling unit airflow and envelope leakage in multifamily buildings</li> </ul>	<p>Field technicians may perform nonresidential acceptance testing for:</p> <ul style="list-style-type: none"> <li>✦ Envelope features</li> <li>✦ Covered process systems</li> </ul>
<b>Special Coordination</b>	<p>When a CLATT or CMATT is required to perform acceptance testing:</p> <ul style="list-style-type: none"> <li>✦ Certified ATTs may be found on ATTCP websites.</li> <li>✦ The ATT should be selected early in the project to facilitate coordination.</li> </ul>	<p>When a HERS Rater will perform acceptance testing:</p> <ul style="list-style-type: none"> <li>✦ For multifamily buildings with three or fewer habitable stories, compliance forms must be registered with a HERS Provider. All other building types are required to have applicable Certificate of Verification forms registered.</li> <li>✦ The HERS Rater must be hired early in the project, especially for a multifamily building project.</li> </ul>	<p>When a field technician will perform acceptance testing, the field technician who will perform the acceptance test is generally selected or identified as the installation is nearing completion.</p>
<b>Responsibilities</b>	<p>The ATT is responsible for:</p> <ul style="list-style-type: none"> <li>✦ Performing the acceptance test</li> <li>✦ Documenting the test on the NRCA form and signing the form</li> <li>✦ Submitting the form to the ATTCP</li> <li>✦ Providing the NRCA form to the building owner and onsite for inspection</li> </ul>	<p>The HERS Rater is responsible for:</p> <ul style="list-style-type: none"> <li>✦ Performing the acceptance test</li> <li>✦ Documenting the test on the NRCV or LMCV form and signing the form</li> <li>✦ Submitting the form to the HERS Provider</li> <li>✦ Providing the NRCV or LMCV form to the building owner and onsite for inspection</li> </ul>	<p>The field technician is responsible for:</p> <ul style="list-style-type: none"> <li>✦ Performing the acceptance test</li> <li>✦ Documenting the test on the NRCA form and signing the form</li> <li>✦ Providing the NRCA form to the building owner and onsite for inspection</li> </ul>
<b>More Information</b>	<p>CEC 2022 Nonresidential and Multifamily Compliance Manual, Chapter 14.1.2: Acceptance Test Requirements Roles and Responsibilities: <a href="http://bit.ly/nonresidential-multifamily-compliance-manual">bit.ly/nonresidential-multifamily-compliance-manual</a>                      CEC Acceptance Test Technician Certification Provider Program Frequently Asked Questions web page: <a href="http://bit.ly/ATTCP-Program-FAQ">bit.ly/ATTCP-Program-FAQ</a>                      CEC Home Energy Rating System Providers web page: <a href="http://bit.ly/CEC-HERS-Providers">bit.ly/CEC-HERS-Providers</a></p>		

**Table 3.** How Do Acceptance Testers Compare?



# What Is the Process?

## Acceptance Testing

When the Certificates of Compliance (NRCC or LMCC) are completed by using the Virtual Compliance Assistant (VCA) Tool, the VCA Tool and author identify which acceptance tests are required. Compliance software is another means to produce the NRCC or LMCC and auto populates the required acceptance testing. Paper forms provided by the CEC can also be used, but there is no guidance or autopopulation supported when using them.

Acceptance testing follows testing protocol established by the Energy Code. Acceptance testing seeks to confirm that the building's systems that require acceptance testing are installed and functioning as indicated by the plans, including the approved Certificate of Compliance (NRCC or LMCC) and the filed Certificate of Installation (NRCI or LMCI).

### 1. Complete Installation

Before acceptance testing can be conducted on a building feature, the feature must be installed and operational. The installing technician should confirm that the installation is complete.

### 2. Inspect Construction

The purpose of the construction inspection is to ensure that the feature is present and capable of complying with the acceptance test requirements for the functional test. The construction inspection is performed following the procedures specified for the feature in the Nonresidential Reference Appendices. The construction inspection generally includes checking records including the NRCI or LMCI, provided by the installing contractor, and then conducting a visual inspection to ensure that the installation is congruent with the records.

### 3. Conduct Functional Testing

The functional testing is conducted as specified in the Nonresidential Reference Appendices and documented on the applicable compliance form. Functional testing involves manipulating controls and taking measurements. These tests are pass/fail. A failed test requires adjustments to the installation until the test passes.

### 4. Complete the Certificate of Acceptance Form

After the feature passes the acceptance test requirements, the person who performed the acceptance test completes and signs the Certificate of Acceptance (NRCA) form. A responsible person for the project must also sign the form to ensure that the performance of the scope of work specified by the Certificate of Acceptance and the test results provided are complete. The completed NRCA form is provided to the building owner and made available on site for the inspection by the authority having jurisdiction (AHJ). When applicable, the NRCA form also is submitted to an Acceptance Test Technician Certification Provider (ATTCP).

## HERS Verification

Some acceptance tests may be conducted by a Home Energy Rating System (HERS) Rater. A HERS Rater is specially trained and certified to perform field verification and diagnostic testing.

Typically, HERS Raters are hired to verify that residential installations comply with the Energy Code. However, as new Energy Code requirements mandated duct testing in some small commercial new or altered ductwork, it seemed practical to allow HERS Raters to use their certified expertise and instrumentation to provide the duct leakage testing for nonresidential projects.

For a multifamily building with three or fewer habitable stories, the project and all associated compliance forms, including the LMCV form, need to be registered with a HERS Provider. For a project on a nonresidential building or a multifamily building with four or more habitable stories, only the NRCV needs to be registered. Check the CEC website for approved HERS Providers at [bit.ly/CEC-HERS-Providers](https://bit.ly/CEC-HERS-Providers).

For New Construction and Additions, the building owner or the general contractor typically hires the HERS Raters. For HVAC Alterations, HERS Raters are typically hired by the installing contractor. HERS Raters cannot be employees of the builder or contractor whose work they are verifying; cannot have a financial interest in the builder's or contractor's business and cannot advocate or recommend the use of any product or service that they are verifying.

Typically, HERS Raters should be engaged at the beginning of a project so that they can coordinate on when they need to perform inspections and testing and to allow the HERS Rater access to the registered compliance documentation associated with the project.

The HERS Rater performs on-site inspections and diagnostic tests, to ensure proper installation as specified in the Nonresidential Reference Appendices.

After the inspection and testing is done, the HERS Rater completes and signs the Certificate of Verification (NRCV or LMCV) form and registers it with the HERS Provider. The completed NRCV or LMCV form is provided to the building owner and made available on site for the inspection by the authority having jurisdiction (AHJ).



## What Are the Required Tests?

Each acceptance test must be performed using methods specified in the Nonresidential Reference Appendix NA7 and have a particular form or forms completed to document that the component or equipment passes the test. Some tests may be performed by field technicians or HERS Raters. Other tests require specific Certified Lighting Acceptance Test Technician (CLATT) or Certified Mechanical Acceptance Test Technician (CMATT) qualifications for the person conducting the test. See Table 4 for a list of the required acceptance tests by building feature and for the methods, forms and tester qualifications required for each test.

<b>Nonresidential and Multifamily Buildings: Required Acceptance Tests by Building Feature</b>				
<b>Acceptance Tests</b> <i>To be performed after system is installed but before final permit</i>	<b>Title 24, Part 6 Section</b>	<b>Nonresidential Appendices Test Method</b>	<b>Required Compliance Forms</b>	<b>Who Can Perform the Test</b>
<b>ENVELOPE</b>				
<b>Fenestration</b> <b>Window Films</b> <b>Dynamic Glazing</b>	<a href="#">§10-111</a> <a href="#">§110.6</a>	<a href="#">NA6.1</a> <a href="#">NA7.4.1</a> <a href="#">NA7.4.2</a> <a href="#">NA7.4.3</a>	NRCA-ENV-02-F	Field Technician
<b>Power Adjustment Factors (PAFs) Applied to the Lighting System</b> ✦ Clerestories ✦ Interior or Exterior Horizontal Slats ✦ Interior or Exterior Light Shelves	<a href="#">§140.3(d)</a> <a href="#">§170.2(e)</a>	<a href="#">NA7.4.4</a> <a href="#">NA7.4.5</a> <a href="#">NA7.4.6</a>	NRCA-ENV-03-F	Field Technician
<b>LIGHTING CONTROLS</b>				
<b>Lighting Alterations</b> <i>For information on required acceptance tests and forms, see <a href="#">§141.0(b)2L</a>.</i>				
<b>All Lighting Controls</b> <b>Newly Installed Lighting Control Systems</b> ✦ Occupancy Sensors ✦ Shut-off Controls ✦ Automatic Time Switch Controls	<a href="#">§110.9(b)</a> <a href="#">§130.4(a)</a> <a href="#">§130.1(c)</a> <a href="#">§160.5(b)4C</a>	<a href="#">NA7.6.2</a> <a href="#">NA7.7</a>	NRCA-LTI-02-A	Certified Lighting Acceptance Test Technician (CLATT)
<b>Automatic Daylighting Controls</b>	<a href="#">§110.9(b)</a> <a href="#">§130.4(a)</a> <a href="#">§130.1(d)</a> <a href="#">§160.5(b)4D</a>	<a href="#">NA7.6.1</a> <a href="#">NA7.7.5.1</a>	NRCA-LTI-03-A	CLATT
<b>Demand Responsive Controls</b>	<a href="#">§110.12</a> <a href="#">§130.4(a)</a> <a href="#">§170.2(e)2Bxi</a>	<a href="#">NA7.6.3</a> <a href="#">NA7.6.5</a>	NRCA-LTI-04-A	CLATT
<b>Energy Management Control System (EMCS)</b>	<a href="#">§130.0(e)</a>	<a href="#">NA7.7.2</a>	NRCA-MCH-18-A	CLATT
<b>Institutional Tuning</b>	<a href="#">§130.4(a)</a> <a href="#">§140.6(a)2J</a> <a href="#">§170.2(e)2Bxi</a>	<a href="#">NA7.6.4</a>	NRCA-LTI-05-A	CLATT
<b>Interlocked Lighting Systems</b>	<a href="#">§140.6(a)1</a> <a href="#">§170.2(e)2A</a>	<a href="#">NA7.7.4</a>	NRCI-LTI-E (Installation Form)	CLATT
<b>Lighting Controls Installed to Earn a Power Adjustment Factor (PAF)</b> <i>(Lighting Controls continued on next page)</i>	<a href="#">§140.6(a)2</a> <a href="#">§170.2(e)2B</a>	<a href="#">NA7.7.5</a>	NRCA-LTI-03-A NRCA-LTI-04-A NRCA-LTI-05-A	CLATT



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Nonresidential and Multifamily Buildings: Required Acceptance Tests by Building Feature				
Acceptance Tests <i>To be performed after system is installed but before final permit</i>	Title 24, Part 6 Section	Nonresidential Appendices Test Method	Required Compliance Forms	Who Can Perform the Test
<b>LIGHTING CONTROLS (continued)</b>				
<b>Lighting for a Videoconferencing Studio</b>	<a href="#">§140.6(c)2Gvii</a>	<a href="#">NA7.7.6</a>	NRCI-LTI-E (Installation Form)	CLATT
<b>Outdoor Lighting Controls</b> † Motion Sensor † Photocontrol † Automatic Scheduling Control	<a href="#">§110.9(b)</a> <a href="#">§130.4(a)</a> <a href="#">§130.2(c)</a> <a href="#">§160.5(c)2</a>	<a href="#">NA7.8</a>	NRCA-LTO-02-A	CLATT
<b>MECHANICAL SYSTEMS</b>				
<b>Simple HVAC Replacements with No Duct Alterations</b> <i>For information on required acceptance tests and forms, see <a href="#">§141.0(b)</a></i>	<a href="#">§141.0(b)</a> <a href="#">§141.0(b)2C-E</a>	<a href="#">NA7.5</a>	NRCA-MCH-02-A NRCA-MCH-03-A NRCA-MCH-05-A NRCA-MCH-12-A	Certified Mechanical Acceptance Test Technician (CMATT)
<b>Outdoor Air Ventilation</b>	<a href="#">§120.5(a)1</a> <a href="#">§160.3(d)1A</a>	<a href="#">NA7.5.1</a>	NRCA-MCH-02-A	CMATT
<b>Constant Volume, Single Zone AC and Heat Pump Controls</b>	<a href="#">§120.5(a)2</a> <a href="#">§160.3(d)1B</a>	<a href="#">NA7.5</a>	NRCA-MCH-03-A	CMATT
<b>New or Altered Duct Systems</b> Acceptance testing is required for single zone units serving < 5,000 ft <sup>2</sup> of floor area where > 25% of duct surface area is in an unconditioned space. <b>Duct System Alterations</b> For information on required acceptance tests and forms, see <a href="#">§141.0(b)2D</a> . New duct systems that are not subject to testing under <a href="#">§120.4(g)1</a> must instead meet the duct leakage testing requirements of California Mechanical Code §603.9.	<a href="#">§120.4(g)</a> <a href="#">§120.5(a)3</a> <a href="#">§160.3(d)1C</a>	<a href="#">NA1.9</a> <a href="#">NA2</a> <a href="#">NA7.5.3</a>	NRCA-MCH-04-A NRCV-MCH-04-H LMCV-MCH-20	HERS Rater or CMATT
<b>Air Economizer Controls</b>	<a href="#">§120.5(a)4</a> <a href="#">§140.4(e)</a> <a href="#">§160.3(d)1D</a>	<a href="#">NA7.5.4</a>	NRCA-MCH-05-A	CMATT
<b>Demand Control Ventilation Systems</b>	<a href="#">§120.1(d)4</a> <a href="#">§120.5(a)5</a> <a href="#">§160.3(d)1E</a>	<a href="#">NA7.5.5</a>	NRCA-MCH-06-A	CMATT
<b>Supply Fan Variable Flow Controls</b>	<a href="#">§120.5(a)6</a> <a href="#">§140.4(c)</a> <a href="#">§160.3(d)1F</a>	<a href="#">NA7.5.6</a>	NRCA-MCH-07-A	CMATT
<b>Valve Leakage Test</b>	<a href="#">§120.5(a)8</a> <a href="#">§140.4(k)2</a> <a href="#">§140.4(k)3</a> <a href="#">§160.3(d)1H</a>	<a href="#">NA7.5.7</a>	NRCA-MCH-08-A	CMATT
<b>Supply Water Temperature Reset Controls</b> <i>(Mechanical Systems continued on next page)</i>	<a href="#">§120.5(a)9</a> <a href="#">§140.4(k)4</a> <a href="#">§160.3(d)1I</a>	<a href="#">NA7.5.8</a>	NRCA-MCH-09-A	CMATT

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<b>Nonresidential and Multifamily Buildings: Required Acceptance Tests by Building Feature</b>				
<b>Acceptance Tests</b> <i>To be performed after system is installed but before final permit</i>	<b>Title 24, Part 6 Section</b>	<b>Nonresidential Appendices Test Method</b>	<b>Required Compliance Forms</b>	<b>Who Can Perform the Test</b>
<b>MECHANICAL SYSTEMS (continued)</b>				
<b>Hydronic System Variable Flow Acceptance</b>	<a href="#">§120.5(a)7</a> <a href="#">§140.4(k)6</a> <a href="#">§160.3(d)1G</a>	<a href="#">NA7.5.9</a>	NRCA-MCH-10-A	CMATT
<b>Automatic Demand Shed Controls</b>	<a href="#">§110.12(b)</a> <a href="#">§120.5(a)10</a> <a href="#">§160.3(d)1J</a>	<a href="#">NA7.5.10</a>	NRCA-MCH-11-A	CMATT
<b>Fault Detection and Diagnostics (FDD) for Packaged Direct Expansion (Dx) Units</b>	<a href="#">§120.2(i)</a> <a href="#">§120.5(a)11</a> <a href="#">§160.3(d)1K</a>	<a href="#">NA7.5.11</a>	NRCA-MCH-12-A	CMATT
<b>Automatic FDD for Air Handling Units (AHUs) and Zone Terminal Units</b>	<a href="#">§120.2(i)</a> <a href="#">§120.5(a)12</a> <a href="#">§160.3(d)1L</a>	<a href="#">NA7.5.12</a>	NRCA-MCH-13-A	CMATT
<b>Distributed Energy Storage DX Air Conditioning Systems</b>	<a href="#">§120.5(a)13</a> <a href="#">§160.3(d)1M</a>	<a href="#">NA7.5.13</a>	NRCA-MCH-14-A	CMATT
<b>Thermal Energy Storage Systems</b>	<a href="#">§120.5(a)14</a> <a href="#">§160.3(d)1N</a>	<a href="#">NA7.5.14</a>	NRCA-MCH-15-A	CMATT
<b>Supply Air Temperature Reset Controls</b>	<a href="#">§120.5(a)15</a> <a href="#">§140.4(f)</a> <a href="#">§160.3(d)1O</a>	<a href="#">NA7.5.15</a>	NRCA-MCH-16-A	CMATT
<b>Water-cooled Chillers Served by Cooling Towers with Condenser Water Reset Controls</b>	<a href="#">§120.5(a)16</a> <a href="#">§160.3(d)1P</a>	<a href="#">NA7.5.16</a>	NRCA-MCH-17-A	CMATT
<b>Energy Management Control System</b>	<a href="#">§110.12</a> <a href="#">§120.5(a)17</a> <a href="#">§160.3(d)1Q</a>		NRCA-MCH-18-A	CMATT
<b>Occupant Sensing Zone Controls</b>	<a href="#">§120.2(e)3</a> <a href="#">§120.5(a)18</a> <a href="#">§160.3(d)1R</a>	<a href="#">NA7.5.17</a>	NRCA-MCH-19-A	CMATT
<b>Central Ventilation System</b>	<a href="#">§160.2(b)2C</a> <a href="#">§160.2(c)</a>	<a href="#">NA2.2</a> <a href="#">NA7.18</a>	NRCA-MCH-20a-H LMCV-MCH-27-H	HERS Rater or CMATT
<b>Kitchen Range Exhaust</b>	<a href="#">§160.2(b)2Avi</a> <a href="#">§160.2(b)2Bii</a>	<a href="#">NA2.2.4.1.3</a> <a href="#">NA2.2.4.1.4</a> <a href="#">NA7.18</a>	NRCA-MCH-20b-H LMCV-MCH-32-H	HERS Rater or CMATT
<b>Indoor Air Quality Ventilation</b>	<a href="#">§160.2(b)2Aivb</a> <a href="#">§160.2(b)2Av</a>	<a href="#">NA2.2.4.1</a>	NRCA-MCH-20c-H NRCV-MCH-27b LMCV-MCH-27b	HERS Rater or CMATT
<b>Dwelling Ventilation</b> <i>(Mechanical Systems continued on next page)</i>	<a href="#">§160.2(b)2Biii</a> <a href="#">§170.2(c)3</a>	<a href="#">NA2.2.4.1.5</a> <a href="#">NA7.18</a>	NRCA-MCH-20d-H NRCV-MCH-27b LMCV-MCH-27b	HERS Rater or CMATT

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Nonresidential and Multifamily Buildings: Required Acceptance Tests by Building Feature				
Acceptance Tests <i>To be performed after system is installed but before final permit</i>	Title 24, Part 6 Section	Nonresidential Appendices Test Method	Required Compliance Forms	Who Can Perform the Test
<b>MECHANICAL SYSTEMS (continued)</b>				
<b>Envelope Leakage</b> Multifamily ≥ 4 Habitable Stories	<a href="#">§120.1</a> <a href="#">§120.4</a>	<a href="#">NA2.3</a> <a href="#">NA7.18</a>	NRCA-MCH-21-A NRCV-MCH-24a-H NRCV-MCH-24b-H LMCV-MCH-24a-H LMCV-MCH-24b-H	HERS Rater or CMATT
<b>New Ventilation Duct Leakage</b> Multifamily ≥ 4 Habitable Stories	<a href="#">§160.2(b)2Av</a>	<a href="#">NA7.5</a> <a href="#">NA7.18.3</a> <a href="#">NA7.18.4</a>	NRCA-MCH-22-A	CMATT
<b>Energy Recovery Ventilation (ERV) or Heat Recovery Ventilation (HRV)</b>	<a href="#">§160.2(b)2Av</a> <a href="#">§170.2(c)3B</a>	<a href="#">NA7.5.4.2</a> <a href="#">NA7.18.4.1</a> <a href="#">NA7.18.4.2</a>	NRCA-MCH-23-A	CMATT
<b>COVERED PROCESSES</b>				
<b>Compress Air Systems</b>	<a href="#">§120.6(e)</a>	<a href="#">NA7.13</a>	NRCA-PRC-01-F	Field Technician
<b>Commercial Kitchen Exhaust</b>	<a href="#">§140.9(b)</a>	<a href="#">NA7.11</a>	NRCA-PRC-02-F	Field Technician
<b>Enclosed Parking Garages</b>	<a href="#">§120.6(c)</a>	<a href="#">NA7.12</a>	NRCA-PRC-03-F	Field Technician
<b>Refrigerated Warehouses</b>	<a href="#">§120.6(a)</a> <a href="#">§120.6(a)2</a> <a href="#">§120.6(a)3</a> <a href="#">§120.6(a)4</a> <a href="#">§120.6(a)5</a> <a href="#">§120.6(a)7</a> <a href="#">§120.6(a)8</a>	<a href="#">NA7.10.1</a> <a href="#">NA7.10.2</a> <a href="#">NA7.10.3.1</a> <a href="#">NA7.10.3.2</a> <a href="#">NA7.10.3.3</a> <a href="#">NA7.10.4</a> <a href="#">NA7.20</a>	NRCA-PRC-04-F NRCA-PRC-05-F NRCA-PRC-06-F NRCA-PRC-07-F NRCA-PRC-08-F NRCA-PRC-16-F NRCA-PRC-17-F	Field Technician
<b>Elevators (Lighting and Ventilation Controls)</b>	<a href="#">§120.6(f)5</a> <a href="#">§160.7(a)</a>	<a href="#">NA7.14</a>	NRCA-PRC-12-F	Field Technician
<b>Escalators and Moving Walkways (Speed Controls)</b>	<a href="#">§120.6(g)2</a>	<a href="#">NA7.15</a>	NRCA-PRC-13-F	Field Technician
<b>Laboratory Exhaust Ventilation Systems</b>	<a href="#">§140.9(c)</a>	<a href="#">NA7.16</a>	NRCA-PRC-14-F	Field Technician
<b>Fume Hood Automatic Sash Closure</b>	<a href="#">§140.9(c)4</a>	<a href="#">NA7.17</a>	NRCA-PRC-15-F	Field Technician
<b>Central Steam Trap Fault Detection and Diagnostics Monitoring</b>	<a href="#">§120.6(i)</a>	<a href="#">NA7.19</a>	Not Available*	Field Technician
* Use an NRCI form to document that the steam trap installation is compliant in accordance with Nonresidential Reference Appendix NA7.19 acceptance testing procedures.				

**Table 4.** Nonresidential and Multifamily Buildings Required Acceptance Tests by Building Feature



## For More Information

### CALIFORNIA ENERGY COMMISSION

[www.energy.ca.gov](http://www.energy.ca.gov)

Learn more about the California Energy Commission (CEC) and its programs on its website.

#### 2022 Building Energy Efficiency Standards

[bit.ly/CEC2022Standards](http://bit.ly/CEC2022Standards)

Explore the main CEC web portal for the 2022 Energy Code, including information, documents and historical information.

#### 2022 Building Energy Efficiency Standards Summary

[bit.ly/CEC2022Summary](http://bit.ly/CEC2022Summary)

View or download this visual summary of the Energy Code's purpose, current changes and impact.

#### 2022 Nonresidential and Multifamily Compliance Manual, Chapters 11.2, 13, 14

[bit.ly/nonresidential-multifamily-compliance-manual](http://bit.ly/nonresidential-multifamily-compliance-manual)

Read the Compliance Manual for more indepth information on the Energy Code.

#### Energy Code Hotline

Call: 1-800-772-3300 (Free)

Email: [Title24@energy.ca.gov](mailto:Title24@energy.ca.gov)

#### Online Resource Center

[bit.ly/CEC-ORC](http://bit.ly/CEC-ORC)

Use these online resources developed for building and enforcement communities to learn more about the Energy Code.

#### Acceptance Test Technician Certification Provider (ATTCP) Program Frequently Asked Questions

[bit.ly/ATTCP-Program-FAQ](http://bit.ly/ATTCP-Program-FAQ)

Consult these FAQs for indepth information on the ATTCP Program.

#### Home Energy Rating System (HERS) Providers

[bit.ly/CEC-HERS-Providers](http://bit.ly/CEC-HERS-Providers)

Start here to find a HERS Provider and HERS Raters.



[www.energycodeace.com](http://www.energycodeace.com)

Stop by this online "one-stop-shop" for no-cost tools, training and resources designed to help you comply with California's Title 24, Part 6 and Title 20.



#### Tools

[www.energycodeace.com/tools](http://www.energycodeace.com/tools)

Explore this suite of interactive tools to understand the compliance process, required forms, installation techniques and energy efficiency regulations in California.

#### Reference Ace

[www.energycodeace.com/content/tools-ace/](http://www.energycodeace.com/content/tools-ace/)

Navigate the Title 24, Part 6 Energy Code using an index, keyword search and hyperlinked text.

#### Q&Ace

[www.energycodeace.com/QAndAce](http://www.energycodeace.com/QAndAce)

Search our online knowledge base or submit your question to Energy Code Ace experts.



#### Training

[www.energycodeace.com/training](http://www.energycodeace.com/training)

On-demand, live in-person and online training alternatives are tailored to a variety of industry professionals and address key measures.



#### Resources

[www.energycodeace.com/resources](http://www.energycodeace.com/resources)

Downloadable materials provide practical and concise guidance on how and when to comply with California's building and appliance energy efficiency standards.

Of Special Interest:

#### Fact Sheets

- ♦ Multifamily Buildings: What's Changed in 2022
- ♦ Nonresidential Buildings: What's Changed in 2022
- ♦ Nonresidential Commissioning Fact Sheet

Check [EnergyCodeAce.com](http://EnergyCodeAce.com) for our latest 2022 tools, training and resources!

**Create an account on the Energy Code Ace site and select an industry role for your profile in order to receive messages about all our offerings!**



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