

INSTALLER and INSPECTOR QUICK-REFERENCE:
2025-NRCA-MCH-11-A
Automatic Demand Shed Control

Purpose and Scope of the Test

If the building has DDC to the zone level, the HVAC control system must be capable receiving a demand response signal and automatically initiating a control strategy once the signal is received. This acceptance test confirms that the HVAC control system is programmed so that it is capable of initiating the control strategy specified in the Energy Code. That is, modify the temperature setpoints in non-critical zones up by 4°F if the system is cooling the space or down by 4°F if the system is heating the space. The building owner or occupant has the option of selecting another control strategy than the one tested here if they choose to enroll in a demand response program.

Test trigger

Newly Constructed and Additions/Alterations: Applies to construction inspection of the HVAC control system interface shed controls and testing.

Relevant Energy Code References and Required Compliance Documents

Title 24, Part 6 of the California Building Standards Code, Building Energy Efficiency Standards (Energy Code) sections 110.12(a), 110.12(b), 120.2(h), 120.5(a)10, 160.3(a)2G, 160.3(d)1J; NA7.5.10; NRCC-MCH-E or NRCC-PRF-E or LMCC-MCH-E or LMCC-PRF-E.

Who Can Perform the Test

This test must be performed by an acceptance test technician certified by a CEC-approved Acceptance Test Technician Certification Provider, using compliance document NRCA-MCH-11-A.

Required Tools

The instrumentation needed to perform the test may include, but is not limited to:

- Access to the HVAC control system to manually simulate the receipt of a Demand Response Signal.

Estimated Time to Complete Test

Construction Inspection: 0.5 hour to review the HVAC control system.

Functional testing: 0.5 to 1 hour (depending on familiarity with the HVAC control system).

Potential Issues and Cautions

Difficulties could be encountered with manipulating the control system if not familiar with the programming language. Therefore, a controls contractor should be on site to assist with the testing.

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Inspection Enforcement

Verify the inspector is in receipt of one NRCA-MCH-11-A for EACH system that must demonstrate compliance. All NRCA forms for Mechanical Systems must have a water mark logo from a certified Mechanical ATTCP Provider.

Required:

Prior to functional testing, verify and document that the EMCS interface enables activation of the central demand shed controls.

Acceptance Criteria

The control system changes the setpoints of non-critical zones on manually simulating an occasion where the HVAC control system receives a demand response signal. Then the system restores the initial setpoints when the demand response event ends.