INSTALLER AND INSPECTOR QUICK-REFERENCE: 2022 NRCA-MCH-23

Heat/Energy Recovery Ventilation Acceptance Testing

Purpose and Scope of the Test

This test verifies heat recovery ventilation (HRV) OR energy recovery ventilation (ERV) is used for central balanced ventilation systems serving multiple dwelling units as specified by the Energy Code.

Test trigger

This test is for buildings with four or more habitable stories in climate zones: 1, 2, and 11-16 with central balanced ventilation systems.

Relevant Energy Code References and Required Compliance Documents

Title 24, Part 6 of the California Building Code, Building Energy Efficiency Standards (Energy Code) sections 160.2(b)2Av, 170.2(c)3Bivb, and NA7.18.4.

Who Can Perform the Test

This test must be performed by an acceptance test technician certified by a CECapproved Acceptance Test Technician Certification Provider, using compliance document NRCA-MCH-23-A.

Required Tools

No tools are required to perform this test.

Estimated Time to Complete Test

Construction inspection: 0.5 hours

Functional testing: 0.5 to 1.5 hour, depending on difficulty accessing equipment components and information for verification.

Potential Issues and Cautions

None.

Inspection Enforcement

Required:

Verify the HRV/ERV system is listed in a CEC approved equipment database such as HVI or AHRI.

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Acceptance Criteria

- The ERV/HRV is installed.
- The product specifications/tear sheets for the installed equipment are available.
- Total design ventilation airflow rate of central ventilation system serving corresponding dwelling units meets or exceeds design ventilation airflow rate of the system.
- The ERV/HRV can provide the designed airflow rate.
- The ERV/HRV's nominal sensible recovery efficiency is 67 percent or greater.
- The ERV/HRV meets the fan power requirements.
- The ERV/HRV has a recovery bypass or free cooling function and meets the high temperature limit requirements.
- Bypass function passes functional testing.