

DOCKETED

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2019 Building Energy Efficiency Standards Lead Commissioner Hearing For 45-Day Language

California Energy Commission
Hearing Room A
(Arthur Rosenfeld Room)

February 6, 2018

Mark Alatorre, PE
RJ Wichert

Nonresidential Appendix (NA)
NA-1 Through NA-7



NA 1 – Nonresidential HERS Verification, Testing, and Documentation Procedures

Changes made to this section include:

- Updated language for Document registration requirements
- Clarification to the roles and responsibilities of each responsible person



NA 1 – Nonresidential HERS Verification, Testing, and Documentation Procedures

HERS Procedures – Group Sampling

Changes to this section are to give direction on how to group and sample dwelling units

Also includes clarification on resampling and corrective action



NA 1 – Nonresidential HERS Verification, Testing, and Documentation Procedures

Third Party Quality Control Program (TPQCP)

- Update and Clarify Specifications and Procedures
- New requirement to confirm the location of the system undergoing testing using an electronic tracking means such as Global Positioning Satellite (GPS) technology



NA 1.9 – Acceptance Test Technician Alternative Procedure

Duct Leakage Acceptance Test results used for verification purposes

When using this procedure, no HERS verification is necessary

This procedure can only be used at the discretion of the local enforcement agency



NA 2.2 – Field Verification and Diagnostic Testing of Mechanical Ventilation Systems

New proposed high-rise residential dwelling unit ventilation requirements include field verification

The procedures in NA2.2 are identical to the procedures of found in the Residential Appendices

NA2.2 also includes verification procedures for the Kitchen Range Hood



NA 2.3 – Field Verification and Diagnostic Testing of Multifamily Dwelling Unit Enclosures

New high-rise residential dwelling unit ventilation requirements include field verification of the dwelling unit envelope leakage.

Applicable when the dwelling unit ventilation system is a stand alone supply or exhaust system



NA 6 – Alternate Default Fenestration Procedure to Calculate Thermal Performance

NA6.1(a) – Nonresidential

- Reduced the square footage from 1,000 square feet to 200 square feet allowed to use the Alternate Default Fenestration Procedure



NA 7 – INSTALLATION AND ACCEPTANCE REQUIREMENTS FOR NONRESIDENTIAL BUILDINGS AND COVERED PROCESSES



NA 7.4 – Building Envelope Acceptance Tests

New Acceptance Tests for advanced daylighting devices

- NA7.4.4 Clerestories for PAF
- NA7.4.5 Interior and Exterior Horizontal Slats for PAF
- NA7.4.6 Interior and Exterior Light Shelves for PAF

Revised Acceptance Tests for Outdoor Lighting Controls

NA7.8.7 and 7.8.8 Automatic Scheduling Controls



NA 7.5 – Mechanical Systems Acceptance Tests

NA 7.5.3 – Air Distribution Systems

Changes were made to the acceptance test under the “functional testing” procedures.

Added language to accommodate the alternative procedure of accepting the results from an ATT in lieu of a HERS verification



NA 7.5 – Mechanical Systems Acceptance Tests

NA 7.5.12 – Automatic Fault Detection and Diagnostics (FDD) for Air Handling Units and Zone Terminal Units

New Acceptance Test built-up air handling units with FDD's

Applicable for FDD systems controlled by a Direct Digital Control system

The new Acceptance Test ensures the FDD system detects/reports the proper faults



NA 7.5 – Mechanical Systems Acceptance Tests

NA 7.5.17 – Occupied Standby

New Acceptance Test for the new occupant sensing zonal controls requirement

Applicable for systems required to implement Section §120.2(e)3.

The new Acceptance Test ensures the occupant sensing zonal control is correctly implemented



NA 7.8 – Outdoor Lighting Controls Acceptance Tests

Revised Acceptance Tests for Outdoor Lighting Controls

NA7.8.7 and 7.8.8 Automatic Scheduling Controls



NA 7.10 – Refrigerated Warehouse Refrigeration System Acceptance Tests

NA 7.10.3.3 – Adiabatic Condensers and Condenser Fan Motor Variable Speed Control

New Acceptance Test for Adiabatic Condensers

The Functional Test is to be performed in “Dry Mode”

Very similar to the air cooled condenser Acceptance Test



NA7.16 - Lab Exhaust Ventilation System Acceptance Test

- Construction inspection for wind and contaminant control
 - Verify and document sensor calibration, sensor location/wiring, wind look-up table values or contaminant concentration threshold, and system control methodology
- Functional testing for wind speed/direction and contaminant control systems
 - Simulation and verification of system operation for minimum, midrange, and maximum wind look-up table values; or
 - Simulation and verification of contaminant event and non-event system performance at multiple exhaust air demand levels
 - Verification of sensor warnings and failsafe operations



NA7.17 - Fume Hood Automatic Sash Closure System Acceptance Test

- **Construction inspection**
 - Verify and document sensor factory calibration, presence sensor location/adjustment, and sash obstruction sensor installation
- **Functional testing**
 - Simulation and verification of system operation for unoccupied condition, obstruction detection, and manual operation of sash.



NA 7.18 – High-Rise Residential Dwelling Unit Acceptance Tests

New Acceptance Test installer verification of outside air

New Acceptance Test installer verification of dwelling unit envelope leakage



How to submit written comments

- **We strongly encourage submitting written comments via e-file.** Comments on the proposed 2019 Energy Code can be submitted to: <https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-02>.
- Comments on the proposed 2019 CALGreen can be submitted to: <https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-03>.
- Comments can also be submitted physically or by e-mail, here:

California Energy Commission
Dockets Office, MS-4

Re: Docket No. 17-BSTD-02 (for CALGreen, 03)

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