



Highlights from the Multifamily New Construction National Program Requirements Version 1/1.1/1.2, Revision 03

Documents related to Revision 03 of the Multifamily New Construction Program are posted to the [ENERGY STAR website](#). Partners are permitted to use this Revision immediately, at their discretion, but must apply this Revision to all multifamily buildings certifying under the Multifamily New Construction Program, that are permitted on or after January 1, 2024.

The [Current Policy Record](#) provides detailed explanations of the specific changes contained in this Revision. 'Mark-up' documents showing all tracked changes except formatting changes are also available. EPA strongly encourages partners to review these documents. The most substantial updates specific to the National Program Requirements are summarized below. For each update, additional information is available by viewing the Policy Record entry with the listed ID number.

Multiple Program Documents

- All documents containing the mandatory requirements for the national program (i.e., checklists and builder requirements), have been updated to include Version 1.2 in the header (PR 00421)
- The definition of a 'building' has been adjusted to better define when attached dwelling units are considered to be within the same 'building' (PR 00359)

National Program Requirements Version 1 / 1.1 / OR-WA 1.2 / Version 1.2

- Separates the current National Program Requirements Document into four individual documents for National v1, National v1.1, National v1.2, and Oregon and Washington v1.2 (PR 00500)
- Adds a new conditional certification process under the ERI Path to allow conditional certification for some dwelling units prior to the whole building being completed and verified (PR 00380)
- Creates a source-energy based target for Phius CORE 2021 and Phius ZERO 2021 projects using the ASHRAE Path (PR 00219)
- Adds insulation levels for Mass Floors to the ENERGY STAR Reference Design. Also, the common space insulation minimums have been adjusted to be the same for all paths within a Version (PR 00289)
- Updates the implementation timeline Exhibit in National v1 and v1.1 to reflect that in states where v1 of the National Program Requirements is still in effect, buildings permitted on or after January 1, 2024, will be required to meet v1.1 (PR 00395)

National Rater Design Review Checklist

- Adds an 'N/A' column to more easily allow Raters to document Items not applicable to the building (PR 00311)
- Adds flexibility to use either the Residential or Commercial Chapter of the IECC for the insulation minimums (PR 00218)
- Combines the common space insulation minimums to be the same for all paths within a Version and align with the ASHRAE Path requirements (PR 00295)
- Adds the more stringent thermal backstop requirements of National v1.2 in Item 2.1 and 3.1 (V1.2; no PR ID)
- Extends the option in Item 3.1 to install insulation on top of the slab to all buildings, not just existing (PR 00450)
- Allows SFNH HVAC Design Reports to be collected for dwelling units in lieu of the MFNC HVAC Design Report for those dwelling units (PR 00229, 00311)
- Allows SFNH HVAC Design Reports to be collected in lieu of the HVAC Design Supplement to Std. 310 for Dwellings & Units (PR 00228)
- Separates Item 4a.1 into sub-items to clarify the documentation needed for Track A – HVAC Grading by Rater, and clarifies the eligibility and applicability of Track A & B to various systems (PR 00419, 00420)
- Clarifies that the Rater should review that load calculations are documented for all configurations of dwelling units including orientation, level and location in the building (PR 00241)

National Rater Field Checklist

- Clarifies concrete slab insulation requirements and provides other alternatives
 - For the horizontal (floor/ceiling) insulation required at concrete slabs:
 - Clarifies that the floor insulation backstop does not apply if it is the floor above unconditioned space that is INSIDE the thermal boundary (PR 00220)
 - For structural columns with a thermal break supporting concrete slabs (e.g., podiums), clarifies that no de-rate penalty on the floor UA is required (PR 00196)



- For structural columns without a thermal break, clarifies that the de-rate only applies to structural 'columns', not 'walls' (PR 00197). Also clarifies that where using the insulated column alternative, a maximum of R-5 can be used in the modified floor UA calculation (PR 00298)
- For heated plenums, clarifies the insulation requirements above the plenum & provides an alternative, where just the bottom of the plenum can be insulated instead (PR 00265)
- For heated garages, clarifies the insulation requirements for the ceiling (PR 00392)
- For the vertical insulation required at slab edges above, below and at-grade:
 - Replaces 'elevated' with 'above-grade' to be clear that Item 3.5 does not apply to 'elevated' below grade slabs (PR 00220)
 - Clarifies that the 'slab-on-grade' edge insulation requirement also applies to concrete slab edges that are at grade level, even if the entire slab is not in contact with the ground (e.g., space exists below the slab) (PR 00284)
 - Clarifies that the slab edge & podium wall insulation requirements do not apply where the design maintains a continuous thermal boundary at the slab edge (e.g., insulation above the slab or directly at the slab edge) (PR 00285)
 - Extends alternative to de-rate wall assembly to all projected slabs (not just projected 'balconies') (PR 00220)
 - Creates horizontal insulation alternative for projected slabs without a thermal break (PR 00220)
 - Clarifies that some slabs with multiple pours may use exemptions developed for monolithic slabs (PR 00386)
- Clarifies mineral wool boards are considered rigid insulation (PR 00212)
- Extends the option to install insulation on top of the slab in Item 3.4 to all buildings, not just existing (PR 00331)
- Expands the allowance to use advanced framing to CZ 4 and 5 for buildings over 3 stories; when used in CZ4c and 5 the building must also have $\geq 5.5"$ framing and $\geq R-20.0$ (PR 00214, 00277, 00286)
- Clarifies the requirements for Track A and Track B for both dwelling units and common spaces (PR 00424)
- Clarifies that electric resistance restrictions within the Prescriptive and ERI Path are for space conditioning and not applicable to pre-heating ventilation air for spaces with other primary space conditioning systems. Also clarifies that the restrictions do not apply to stairwells where automatic thermostatic controls prevent operation above 50°F (PR 00307)
- Removes requirement to verify that the thermostat is located on an interior wall (PR 00262)
- Clarifies hydronic distribution requirements only apply to boilers serving multiple dwelling units (PR 00283)
- Requires townhouses to complete pressure-balancing for all bedrooms, regardless of airflow (PR 00225)
- Clarifies that duct testing is required for common spaces using ANSI / RESNET / ACCA / ICC 310 (PR 00281)
- Clarifies only the exhaust portion of central balanced ventilation systems must meet the central exhaust testing requirements in Item 6.7 (PR 00315)
- Clarifies sleeping units may use number of beds as a proxy for occupants when calculating ventilation rates (PR 00266)
- Provides a temporary alternative to measurement of outdoor air supplied via PTAC/PTHP for common spaces (PR 00273)
- Clarifies central exhaust fans > 1HP must meet or exceed the efficiency standards for NEMA Premium motors but do not need to be labeled. Further, IE3, IE4 and IE5 motors meet the efficiency of NEMA Premium (PR 00200, 00202)
- Adds National v1.2 hot water efficiencies and heating and cooling equipment efficiencies (V1.2; no PR ID)
- Removes requirement for domestic hot water pipe insulation (PR 00267)
- Requires hot water delivery temperature measurement at faucet only, not at showerhead (PR 00340)
- Clarifies which common spaces are exempt from lighting controls (PR 00237)
- Allows LEDs to be installed in lieu of meeting common space and garage lighting power density calculations (PR 00274, 00282)
- Clarifies lighting control requirements are not applicable to exterior lights on the dwelling unit meter (PR 00257)

National HVAC Design Report

- Provides an alternative to use the SFNH HVAC Design report for dwelling units where room-by-room loads are calculated, without reporting occupant gains and non-occupant internal gains (PR 00229)
- Clarifies over-ventilation limits for common spaces only apply to the Prescriptive and ERI Paths (PR 00238)
- Clarifies that outdoor air airflow supplied to unique common space must be listed separately (PR 00294)



- Clarifies that all outdoor air inlets on HVAC systems must have a motorized damper that closes when the ventilation is off (PR 00242)
- Allows the use of ASHRAE 183 for load calculations (PR 00245)
- Clarifies that the loads should be documented for all the configurations (orientation, level and location within the building) of the dwelling units to be certified (PR 00240)
- Clarifies that the maximum capacity should be reported for two-speed or variable-speed systems (PR 00258)
- Allows all cooling systems without an AHRI rating to use OEM-provided documentation (PR 00221)
- Removes requirement to locate thermostat on an interior wall (PR 00260)
- Removes the requirement to limit simultaneous heating and cooling (PR 00280)
- Adds the following National HVAC Functional Testing Checklist requirements to the HVAC Design report:
 - Make-up air sources must be mechanically closed when the boiler is not in operation (PR 00263)
 - Shared condensing boilers must meet the design temperature to condense (PR 00231)

National HVAC Functional Testing (FT) Checklist

- Allows individuals within an organization to complete FT Checklist under the oversight of FT Agent (PR 00278)
- Provides new Item for FT Agent to confirm when sampling is used, documentation was collected that the installing contractor performed testing on all systems (PR 00384)
- Removes Section 5 requirement to verify that thermostat is located on an interior wall (PR 00261)
- Removes Section 5 requirement to measure supply airflow temperatures in heating and cooling mode (PR 00398)
- Removes Section 5 requirement to limit simultaneous heating and cooling (PR 00279)

National Water Management System Requirements

- Clarifies which cladding requires additional bond-break drainage plane layer (PR 00268)
- Allows extruded polystyrene insulation to be used as a capillary break (PR 00256)

National ERI Target Procedures Version 1 / 1.1 / 1.2

- Clarifies the Reference Design for Townhouses (PR 00254)
- Adds a mass floor U-factor (PR00290, 00291)
- Specifies an ASHP instead of a GSHP in CZ 7 & 8 for National v1.1 (PR 00456)
- Clarifies how to model GSHP efficiency and shared circulation loops (PR 00203)
- Adds the electric boiler thermal efficiency level (PR 00224)
- Configures all ENERGY STAR Reference Designs with the same dehumidification system as the ANSI / RESNET / ICC 301 Energy Rating Reference Home, when a system is present in the Rated Unit (PR 00457 - 00461)

Simulation Guidelines – ASHRAE 90.1-2016

- Removes requirement for low-rise buildings to model the Baseline Building as wood-framed construction instead of steel-framed (PR 00198)
- Allows Baseline local mechanical exhaust rates to exceed the greater of ASHRAE 62.2-2013 or the building code, by 15 cfm or 15%, where the modeled rates do not exceed the proposed design (PR 00272)
- Allows spaces in the Proposed Design to be modeled using ASHRAE 90.1-2019 lighting power densities, where 100% LEDs are installed. For dwelling units, they may be modeled as 0.6 W/ft² (PR 00287)
- Adds induction cooktop credit (PR 00288)
- Clarifies that any project may use DOE's Compliance Form but all buildings modeling to ASHRAE 90.1-2019 must use the Compliance Form (PR 00108)
- Clarifies which EIA rates to use when both commercial and residential meters are present (PR 00300)

Simulation Guidelines – ASHRAE 90.1-2007 and ASHRAE 90.1-2010

- Clarifies that Baseline SHW EF for in-unit tankless water heater shall be determined using the equations for EF for storage water heaters with a volume of 40 gallons (PR 00201)
- Allows spaces in the Proposed Design to be modeled using ASHRAE 90.1-2019 lighting power densities, where 100% LEDs are installed. For dwelling units, they may be modeled as 0.6 W/ft² (PR 00287)
- Adds induction cooktop credit (PR 00288)
- Updates the baseline EF calculation for in-unit SHW for ASHRAE 90.1-2010 models (PR 00199)
- Clarifies how to convert from AFUE to Et (PR 00299)
- Clarifies which EIA rates to use when both commercial and residential meters are present (PR 00300)