



### Implementation

The 2009 Washington State Energy Code (WSEC) went into effect January 1, 2011, and incorporates many changes to how energy-related systems and features are reviewed, constructed and inspected. The significant changes listed below are for single-family residences only and are abbreviated from the full text found in the WSEC Chapters 1 – 10. Multifamily requirements are located under the commercial sections of the WSEC in Chapters 11 - 15.

The City of Bellevue will review plans under these new changes for permits issued on or after January 1, 2011.

### Significant Changes

1. Furnace replacements now require duct testing per WSEC Section 101.3.2.6. A copy of the duct testing affidavit shall be provided to the mechanical inspector prior to final inspection approval.

Exceptions:

- Ducts with less than 40 lineal feet in unconditioned spaces
- Ducts that have been previously tested
- Ducts containing asbestos

2. New construction now requires Building Air Leakage Testing per WSEC 502.4.5 (Blower door test). Provide report to building inspector prior to final inspection approval.

Exception: Additions under 750 square feet.

3. Duct work is required to be leak tested per WSEC 503.10.2. A copy of the duct testing affidavit shall be provided to the mechanical inspector prior to final inspection approval.

Exception:

- Leakage test is not required if all duct work is in conditioned space.
- Leakage test is not required if furnace is a nondirect-vent-type combustion appliance installed in an unconditioned space. A maximum of 6' of connected duct work in the unconditioned space is allowed. All additional supply and return ducts shall be within the conditioned space. Ducts outside the conditioned space shall be sealed with mastic type duct sealant and insulated on the outside with R-8 insulation for above-grade ducts and R-5 water-resistant insulation when within a slab or earth.

4. Insulation values have changed for roof /ceiling as follows: R-49 in attics. R-38 in attics with raised heel trusses (advanced framing). R-38 for single rafter or joist vaulted ceilings per WSEC Section 602 & Table 6-1.
5. All insulation shall be in substantial contact with the surface being insulated per WSEC Section 502.1.4.1.

Exception: A floor/ceiling assembly above a garage may have the insulation in contact with the garage ceiling. All duct work in this joist cavity must be inside the conditioned space per WSEC Section 502.1.4.7.

6. Insulation markers shall be placed every 300 square feet and shall face toward attic access per WSEC Section 502.1.4.1.
7. All HVAC controls are required to have a 5-2 programmable schedule per WSEC Section 503.8.
8. Per WSEC Section 503.8.3.5, heat pump controls with supplemental electric resistance heaters shall have controls that:
  - Prevent supplementary heater operation when the load can be met by the heat pump alone; and
  - The cut-on temperature for supplementary heating and the cut-off temperature for compressing heating shall be higher than the cut-off temperature for supplementary heating.
9. All heat pumps installed under Section 503.8.3.5 shall include supplementary heat lock out based on outdoor temp, have a maximum setting of 40 degrees Fahrenheit and be set to 32 degrees or less at final inspection
10. 50% of all indoor lighting fixtures shall be high-efficacy-equipped per WSEC Section 505.1.
11. High-efficacy fixtures are required for all outdoor lighting attached to the building or must have photo daylight control and a motion sensor per WSEC Section 505.1.
12. New construction mechanical equipment must now develop one credit complying with Energy Credits Chapter 9 of the WSEC.

### Where can I get additional information?

- Building Inspections, 425-452-4570
- Permit Processing, 425-452-6864 or [PermitTech@ci.bellevue.wa.us](mailto:PermitTech@ci.bellevue.wa.us)
- [www.bellevuewa.gov/developmentservices.htm](http://www.bellevuewa.gov/developmentservices.htm)
- [www.mybuildingpermit.com](http://www.mybuildingpermit.com)

This document is intended to provide guidance in applying certain regulations and is for informational use only. It cannot be used as a substitute for the Construction Codes or for other city codes. This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions