November 23, 2009

Listserv Members,

On Friday, November 20, 2009, the Washington State Building Code Council (SBCC) voted to approve changes to the Washington State Energy Code (WSEC). For many, working on code change proposals, participating in weekly Technical Advisory Group (TAG) meetings, and attending and testifying at SBCC meetings is a process that began over a year ago.

A group of energy conservation advocates originally proposed a code change package that increased the efficiency of the WSEC by 30%. This proposal was made for two reasons. First, in recognition of Governor Gregiore's request[1] and secondly, in accordance with a grant from US Department of Energy to the Washington State Department of Commerce and the Washington State University Extension Energy Program. During the TAG process concessions were made by all stakeholders which resulted in reducing the residential savings to 22% to 25%. Commercial energy savings were approximately 15%. The amendments made by the SBCC reduced the efficiency improvements beyond the TAG's original modification, but the exact amount is not known at this time. Additional computer modeling is necessary to determine the final approved improvement percentages.

The following is a list of changes to the residential sections of the WSEC. A list of commercial changes will be posted later.

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Changes to WSEC Residential Sections

- The residential chapters apply to single family dwellings (IRC definition) and multifamily is located in the commercial sections of the WSEC.
- Duct testing of existing ducts required when a furnace air handler is replaced (there are exceptions).
- A certificate of energy features of the residence is required to be posted.
- Design temperatures for various Washington locations are now listed in Chapter 3.
- The "substantial contact with the surface being insulated" language has an exception for insulation location in certain types of floor systems in order to keep ducts within the conditioned space.

- Conditioned and unvented attics are allowed under certain conditions.
- Building air leakage testing (with a blower door) is required.
- Programmable thermostats are required on all primary heating systems.
- Strip heat lock-out devices required on heat pumps when the space conditioning requirements can be met with the heat pump alone.
- Ducts located in ceiling and floor space cannot displace required insulation levels.
- Building cavities cannot be used as ducts.
- Duct testing required for all new HVAC systems with ducts located in unconditioned spaces.
- Residential swimming pool pumps have new efficiency requirements.
- Residences must have 50% high efficacy luminaries (light fixtures).
- Changes to Table 5-1 (Component Performance calculations) to reflect efficiency increases.
- Spray foam with a minimum R-value of 3.6 per inch is deemed to comply with the required R-21 prescriptive requirement when installed in a 5.5 inch cavity.
- Garden type windows must now be double glazed for prescriptive compliance.
- Tables 6-1 and 6-2 have been modified. The final versions will be posted later.
- Chapter 7, Reference Standards has been updated with current standards and a duct testing standard has been added.
- Chapter 8, Acceptable Software has been updated to reflect current available packages.
- Chapter 9, Additional Residential Energy Efficiency Requirements has been added to the WSEC. This is a list of 15 options with various credits for each measure. New homes will have to have one additional credit in addition to the base code requirements.
- Chapter 10, Default U-factors. A number of default U-factors have been added to this chapter.