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## DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT MEMORANDUM

**TO:** Senator Mary Margaret Whipple, Chairperson,  
Commission on Energy and Environment

**FROM:** Emory Rodgers, Deputy Director  
Division of Building and Fire Regulation

**DATE:** June 14, 2009

**SUBJECT:** 2009 Virginia Uniform Statewide Building Code (USBC) Regulatory Process, 2009 International Energy Conservation Code (IECC) and the International Residential Code (IRC)

It is a pleasure to brief the Commission on Energy and Environment on the 2009 USBC regulatory process which will reference the 2009 International Energy Conservation Code and the 2009 International Residential Code.

**1. USBC Regulatory Schedule - Key dates are:**

- July 27, 2009: There will be a public hearing and approval of the proposed 2009 USBC by the Board of Housing and Community Development.
- January, 2010: The second public hearing will be held.
- March 1, 2010: This is the deadline for code change submissions.
- June 21, 2010: The Board of Housing and Community Development is scheduled to approve the final regulations.
- September 30, 2010: This is the expected effective date of the final regulations.

**2. Meeting the 30% energy efficiency goal:**

- The 2006 USBC, IECC and IRC have an approximate 11% increase in energy efficiency than the 2003 USBC.
- The 2009 USBC, IECC, and IRC have an approximate 15% increase in energy efficiency.
- The 2012 IECC is expected to increase energy efficiency by another 15%.

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**3. 2009 IECC and IRC new and more stringent energy provisions:**

- Programmable thermostats will be required for homes.
- Duct testing will be required prior to concealment or final permit approval.
- Air barrier testing (door blower test) or increased inspections will be required for the insulation, glazing and house wrap installations.
- Commences the elimination of the use of fixtures using incandescent lighting.
- Window solar heat efficiency will be increased by lowering the U value that results in most homes having double pane/low E insulated windows.
- The insulation of mechanical system piping will be increased.
- HVAC fan control systems will be required for the first time to have performance efficiency requirements.
- Commercial buildings over 5,000 square feet will be required to have lighting control systems.
- There will be a requirement for outdoor heating systems to be of a radiant heat type that shuts off when no occupants are present.
- Commercial glazing will require more stringent U values along with the curtain walls insulation and sealing requirements.
- Energy recovery ventilation systems will be required for larger systems. Large water chilling systems will require testing. Supply air economizers and thermostatic off-hours setback controls will be required.
- Swimming pools are to have automatic shut off and covers for heated pools.
- Exterior lighting, where supplied from the building, will for the first time be required to set zones based on 4 zones of wattage with lower wattage near parks and residential areas and higher wattage allowed for commercial zones. There are a number of exceptions, including local requirements, transportation, emergency, historical, directional, advertising and game fields.

**4. Existing buildings:**

Additions, most alterations, change of occupancies (such as a warehouse being converted to an apartment building) would require compliance with the new code provisions for the work being done.

**5. Compliance:**

DHCD, in collaboration with the Department of Mines, Minerals and Energy, will have to certify to the Department of Energy, within the next 8 years, that, 1) our USBC regulatory process has adopted the applicable IECC and IRC model codes; 2) our state energy plan will have in place a reporting, tracking and audit system for the code enforcement plan review and inspection programs; and 3) our built and renovated buildings are at a 90% compliance level with these model codes. DHCD, Fairfax, Arlington and Chesterfield building officials are working closely with the DOE contractor on the development of the guidelines to be used to measure compliance.

Again, we appreciate the opportunity to present this information to the Commission on Energy and Environment.