



Proposed Code Change to MD Energy Code

10/20/2011

**Ed Landon, Director
Codes Administration/DHCD
State of Maryland
100 Community Place
Crownsville, MD 21032**

Re: Proposed Energy Code Changes

**PROPONENT: Donald J. Vigneau, AIA
Building Energy Codes Project Manager
Northeast Energy Efficiency Partnerships
91 Hartwell Avenue
Lexington, MA 02421-3413**

PROPOSED CODE CHANGE. Delete Table 402.4.2 and substitute as follows:

**TABLE 402.4.2
~~AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA~~
(Delete Table and substitute the following. Text of Section 402.4.2 to remain unchanged)**

**TABLE 402.4.2
VISUAL AIR BARRIER AND INSULATION INSPECTION**

<u>COMPONENT</u>	<u>INSULATION INSTALLATION CRITERIA</u>	<u>AIR BARRIER CRITERIA</u>
General Requirements	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier.	A continuous air barrier is installed in the thermal envelope. Breaks or joints in the air barrier are sealed. Air permeable insulation is not used as a sealing material.
Ceiling / attic	In any dropped ceiling/soffit, the insulation is substantially aligned with the air barrier.	Air barrier in any dropped ceiling / soffit is substantially aligned with insulation and any gaps are sealed. Attic access, knee wall door or drop down stair to unconditioned attic is sealed.
Walls	All corners and headers are insulated. Insulation is in substantial contact and continuous alignment with air barrier.	Junction of foundation and sill plate is sealed. Junction of exterior wall and top plate is sealed. Junction of the exterior wall and floor sheathing is sealed. Knee wall is sealed.
Fenestration	Comply with narrow cavity requirements	Space between fenestration jambs and framing is sealed.
Rim joists	Rim joists are insulated.	Air barrier is installed at the rim joist.
Floors (including above garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking.	Air barrier is installed at any exposed edge of insulation.
Crawl space walls	Insulation is permanently attached to walls.	Exposed earth in unvented crawlspaces is covered with Class I vapor retarder with overlapping joints taped.



<u>COMPONENT</u>	<u>INSULATION INSTALLATION CRITERIA</u>	<u>AIR BARRIER CRITERIA</u>
<u>Shafts, penetrations</u>	<u>Insulation shall not extend through draft-stopping or fire-stopping openings. Use caulking rated for the application</u>	<u>Duct shafts, utility penetrations, knee walls, and flue shafts opening to exterior or unconditioned space are sealed.</u>
<u>Narrow cavities</u>	<u>Batts in narrow cavities are cut to fit; narrow cavities are filled by sprayed/ blown insulation.</u>	
<u>Garage separation</u>		<u>Air sealing is provided between the garage and conditioned spaces.</u>
<u>Recessed lighting</u>		<u>Recessed light fixtures installed in the building thermal envelope are airtight, IC rated, and sealed to drywall.</u>
<u>Plumbing Ducts, Wiring</u>	<u>Insulation is placed between the exterior of the wall assembly and ducts or pipes. Batt insulation is cut and fitted around plumbing and wiring or sprayed/blown insulation extends between piping and wiring to the exterior of the wall assembly.</u>	<u>All plumbing , ductwork and wiring air barrier penetrations shall be sealed.</u>
<u>Shower / tub on exterior wall</u>	<u>Exterior walls adjacent to showers and tubs shall have insulation filling any gaps or voids between tub or shower walls and unconditioned space.</u>	<u>Exterior walls adjacent to showers and tubs shall have an air barrier separating the exterior wall from the shower and tubs.</u>
<u>Electrical / phone box on exterior walls</u>	<u>Insulation completely fills voids between the box and exterior sheathing</u>	<u>Air barrier extends behind boxes or air sealed type boxes are installed.</u>
<u>Common wall</u>		<u>Air barrier is installed in common wall between dwelling units.</u>
<u>HVAC register boots</u>		<u>HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.</u>
<u>Fireplace</u>		<u>Air barrier is installed on fireplace walls. Fireplace shall have gasketed doors.</u>

Reason: The two criteria as presented in the existing Table are two separate tasks, accomplished at separate times during the building process, and should be inspected at different intervals. Air sealing can only be effectively inspected at the completion of rough-in of plumbing/heating/electrical systems; before the insulation is installed to fill the very cavities that must be visually inspected. Separation of the criteria makes it simple and convenient for builder understanding and compliance inspections.

The proposed change is taken almost exactly from EC81 2010/11 authored by the Energy Efficient Codes Coalition. NEEP is a part of that group. It has been adopted by Vermont in its new Residential Building & Energy Standards, effective 10/1/2011.

The proposed change will not increase the cost of construction.