

**Illinois Energy Code Advisory Council Residential Subcommittee**  
**April 26, 2018 – 1:30 p.m.**  
**Teleconference**  
**MEETING MINUTES**

**In Attendance:**

**Subcommittee Members**

Chairman David Wytmar, Groundwork, Ltd.  
Allen Drewes, Home Builders Association of Illinois  
Jason Huelsmann, Home Builders Association of Greater Southwest Illinois  
Don Plass, HR Green, Inc.  
Dean Studer, Illinois Environmental Protection Agency  
Lisa Mattingly, Capital Development Board (CDB)

**Guests**

Eric Lacey, Responsible Energy Code Alliance  
Darren Meyers, International Energy Conservation Consultants LLC  
Tracy Butler, Home Builders Association of Greater Southwest Illinois  
Ian Blanding, Midwest Energy Efficiency Alliance (MEEA)  
Eric Makela, New Buildings Institute  
Lindsey Elton, Affordable Housing Developers  
Tony Holub, Passive House Alliance  
Anita Lichterman, Village of Winnetka  
Mike Collignon, Green Builder® Coalition  
Nate Kleist, Energy Diagnostics  
Nicole Westfall, MEEA  
Greg Thorpe, Illinois Council of Code Administrators and Rock Island County Zoning and Building Department  
Mike DeWein, Ledios Engineering  
Ryan Siegel, Smart Energy Design Assistance Center  
Raoul Johnston, Northwest Building Officials and Code Administrator and City of Elgin  
Dale Engebretson, Chief Building Code Official, City of Warrenville  
Chris McTaggart, Building Efficiency Resources  
Connor Jansen, Illinois Green Alliance and Seventhwave

Meeting was called to order at 1:30 p.m.

Roll call of Subcommittee Members was taken by Ms. Mattingly.

Introduction of guests was made.

A motion to approve the meeting minutes from the April 11<sup>th</sup> Subcommittee Meeting was made by Mr. Drewes. It was second by Mr. Huelsmann. Motion passed.

Proposed Code Change R02 R402.4.1.2 changes the air leakage rate from five air changes per hour in the 2015 Illinois Code to two air changes per hour. Chairman Wytmar stated that based on discussion from the last meeting he would like to take this proposal off the table. For 2012 and 2015 the Illinois Code maintained five air changes per hour. He would like to recommend four air changes per hour (ACH). Industry has been working to improve the construction of residential buildings. The decrease in ACH provides a level of consistency but keeps the State on a path of improvement. He believes that Iowa is using four ACH. Mr. Huelsmann feels that this is a natural line of progression to go from five to four and then move towards three later. He is in support of four ACH. Mr. Drewes concurred. Mr. Plass also agreed and feels it shows progress.

Ms. Lichterman asked if the Council would continue to progress towards moving in line with the International Code. Chairman Wytmar stated that he would like to see that in the future but that cannot be determined at this time.

Mr. Thorpe stated that Iowa has reverted back to 2009 International Energy Conservation Code (IECC).

Mr. Blanding stated that he does not believe that Iowa has converted back to 2009. Mr. Thorpe clarified in saying that the local jurisdictions have been allowed to choose what they code version they use and this has led to a decrease in stringency in Iowa.

Mr. McTaggart said three air changes per hour is not difficult to achieve.

Mr. Dewein said there are requirements in the Illinois Residential Code (IRC) for makeup air for combustion reasons. He went on to say that the duct testing requirements are much harder to achieve than the ACH requirement.

Mr. Holub referenced an article which said that air tightness is a measure of quality. Buildings with two and three ACH reflect good construction quality. He hopes that the Council will continue to move towards lower numbers in the next iteration of the Code.

Ms. Elton stated that as soon as builders have the education and resources they are able to hit the lower ACH's. She feels that there has been enough time for builders to get up to speed. Many builders are getting below three ACH.

Mr. Makela suggested adopting three ACH but delay the effective date for this requirement for one year to allow builders that are having trouble with the ACH to get the education and resources they need to be able to comply within the year.

Mr. Blanding said that MEEA, in addition to finishing a compliance study, is also facilitating code enforcement collaborative meetings across the state.

Mr. Jansen recommend keeping the IECC three ACH per hour. The ComEd Affordable Housing Program is requiring three ACH and builders in this program have not had any trouble meeting the requirement.

Mr. Collignon commended the Subcommittee on moving to a more stringent requirement.

A motion to modify Section R402.4.1.2 to four air changes per hour at 50 pascal was made by Mr. Huelsmann. Mr. Drewes seconded the motion. Motion passed.

Proposed Code Change R05 adds an exception to Section R402.4.1.2 – Ms. Elton gave a brief overview of her proposal. Recommending the enclosure provision to allow for more leniency. Mr. Plass stated that he would be in favor of this proposal.

Mr. Siegel said that the code currently allows for whole building testing instead of individual units. He asked why would there be a need to test individual units. Ms. Elton said that the Code does allow for this but sometimes it isn't possible because of no common space in the building.

Motion to accept the amendment was made by Mr. Plass with the expectation of amending it to four ACH instead of three. Mr. Huelsmann seconded. Motion passed.

Chairman Wytmar thanked everyone that submitted proposals. The discussion moved to the 2015 Illinois amendments. He asked to treat this as a consent agenda versus rehashing each amendment. He suggested going through each one and survey the subcommittee on their views.

Section 1 items were not discussed because they need to remain in place for administration of the Code.

He started with Chapter 2 Definitions. Motion passed to carry the 2015 Chapter 2 amendments forward.

Section R401.2 Compliance - Chairman Wytmar does not believe that this amendment is needed any longer because there is a standard now in place for Energy Rating Index (ERI). Mr. Plass agreed. Mr. Makela is a proponent. The Chair recommended to accept R401.2 as is in the 2018 IECC without amendment. It was motioned by Mr. Plass. Seconded by Mr. Huelsmann. Mr. Plass stated that this was done in 2015 because training on ERI was not supported by Department of Commerce and Economic Opportunity. Motion passed.

Table R402.1.2 Insulation and Fenestration Requirements by Component Glazed Fenestration SHGC – The modification to this part of the table was made to keep the entire state with the same requirements versus have requirements for two different climate zones.

Mr. Lacey noted that the 2018 U-factors have changed to .32 and .30. He would recommend leaving the Code as is. Mr. Meyers also suggested leaving as is so that RESCheck can be used. Pacific Northwest National Laboratory will not make modifications for this. Mr. Makela also commented and supports leaving this as is. It impacts compliance on all approaches. Chairman Wytmar recommends keeping the 2018 IECC Table R402.1.2 as is. It was motioned by Mr. Plass. Mr. Drewes seconded. Motion passed.

Table R402.1.2 Insulation and Fenestration Requirements by Component Basement Wall R-Value - No comments were made. The Chairman suggested modifying the R-Value

for 5 and Marine 4 to 10/13 which is the same as the 2015 amendment. Mr. Drewes motioned and Mr. Huelsmann seconded. Motion passed.

Table R402.1.4 Equivalent U-Factors - Chairman Wytmar suggested keeping the amendment from the 2015 Code. A motion was made by Mr. Plass and Mr. Huelsmann seconded. Motion passed.

R402.2.2 Ceilings with Attic Spaces - Chairman Wytmar stated that this particular exception impacts very few buildings. It also helps with compliance. Motion to keep amendment was made by Mr. Plass and seconded by Mr. Drewes. Motion passed.

R402.2.9 Basement Walls. Chairman Wytmar recommended keeping the addition of "within six-inches (152 mm) of" and also the Exception. Motion was made by Mr. Drewes Seconded by Mr. Studer. Motion passed.

R402.4.1.2 Testing – As discussed earlier in the meeting the air changes per hour will be changed to four. A motion to keep the 2015 amendments with the exception of air changes per hour was made by Mr. Huelsmann. Seconded by Mr. Drewes. Motion passed.

R402.4.4 Rooms Containing Fuel Burning Appliances - This section was deleted in its entirety in 2015. Motion was made to keep this change by Mr. Plass. Mr. Huelsmann seconded. Motion passed.

R403.6 Mechanical Ventilation - Chairman Wytmar believes the sections from the IRC code were added so that there is consistency throughout the state because there is not a statewide residential code. He suggests changing the ACH to four and add the language from the 2018 IRC in place of the 2015.

Mr. Makela said five ACHs was not included in this section because of climate zones but because this ACH level is where mechanical ventilation becomes required or needed. He suggested leaving five ACH. Mr. Siegel suggested removing this sentence so it doesn't cause confusion or have to be changed with each code cycle.

Mr. Drewes made a motion to allow the Chairman's suggestions noted above but with the removal of the first sentence. Mr. Studer seconded. Motion passed.

Table R405.5.2(1) Specifications for the Standard Reference and Proposed Designs - Chairman Wytmar suggested changing this to four ACH and matching the testing standards language in Section R402.4.1.2. Mr. Drewes motioned to make these changes. Mr. Huelsmann seconded. Motion passed.

Section R406 ERI Compliance Alternative - Mr. Plass motioned that the amendments made in 2015 were no longer needed. Mr. Drewes seconded. Motion passed. The 2018 Illinois Code will have no amendments to this section.

Section R502.1.1.2 Heating and Cooling Systems – A motion to keep the 2015 amendment was made by Mr. Plass. Second by Mr. Drewes. Motion passed.

Section R503.1.1 Building Envelope – A motion to keep the 2015 amendments was made by Mr. Plass. Second by Mr. Drewes. Motion passed.

Section R503.1.2 Heating and Cooling Systems – A motion was made to keep 2015 amendments by Mr. Plass. Second by Mr. Drewes. Motion passed.

Section R504.2 Application - A motion to keep the 2015 amendments was made by Mr. Studer. Seconded by Mr. Plass. Motion passed.

Chairman Wytmar thanked all of the public members that participated on the calls. He asked Ms. Mattingly how the amendments would be drafted and whose responsibility it is. Ms. Mattingly stated that CDB drafts the amendments for submission to Joint Committee on Administrative Rules. She noted that the Commercial Subcommittee isn't as far along in their review of amendments. Once all the amendments are reviewed and voted on at the subcommittee level, a full Council meeting will be called to review and vote on the amendments.

Motion was made to adjourn by Mr. Plass. Mr. Huelsmann seconded. Motion passed.

Meeting adjourned at 3:02 p.m.