



8970 250th Street East  
Hampton, MN 55031

Phone: (612) 964-0032  
Fax: (507) 263-8087

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Jon Passe  
1200 Pennsylvania Ave., NW  
MC 6202J  
Washington DC 20460

Jon:

As always thank you for all the support that you and your staff provide to us out here in the field. It is truly appreciated.

Per the request and instructions of the proposed changes to Energy Star Homes program for 2006, Residential Science Resources, LLC (RSR) has a few brief comments and/or questions:

1. Implementation Time Line of July 01, 2006
  - Currently RSR runs a utility sponsored Energy Star Homes Program that has been filed with the MN Dept of Commerce.
  - This current program/contract was written in July of 2004; to runs from Jan 01, 2005 – Dec 31, 2006.
  - It would be very difficult alter this filing to both the MN Dept of commerce and to the participating homebuilders during the contract.
  - RSR would like to see the implementation period extended to January 1, 2007.
  
2. Duct Systems
  - RSR would like further clarification as to what constitutes “located in conditioned space”
  - For example, commonly MN homes will have a room out over a garage.
  - 90% of the homes duct work will be located clearly inside the thermal envelope
  - In order to heat/cool that room the supply duct work will be run out in the floor cavity, as close to the bottom of the sub-floor as possible, to the far exterior wall.
  - The garage ceiling will always be sheathed in this instance
  - RSR would like to know if this scenario is defined as “conditioned space”?
  
3. Water Heaters
  - Much discussion on power vent and combustion safety
  - Can builders use electric?
  - Further more, MN has a few electric companies that sell “Off Peak” electric
  - Can homes get credit for participating in this type of program??

#### 4. Thermal Bypass Checklist

- “Insulated Floor Above Garage”
- “Insulation is installed to maintain permanent contact with under side of sub floor”
- Commonly homes in MN built with this detail are insulated with “blown in insulation”
- This type of insulation will eventually settle and compact, hence not being in contact with the sub-floor.
- However, many times these cavities may be over 24 inches deep, making in unfeasible to use friction fit batts, placed in direct contact with the sub floor, and making it difficult to insulate the webs of any trusses.
- RSR would like to see this wording changed/modified

Thank-you for the opportunity to voice our comments and questions. Please contact me directly for clarification of these points.

Thank-you

Mat Gates  
CEO, Residential Science Resources

CC:  
Rick Wheeler, Residential Science Resources  
Kim Sherman, Xcel Energy  
Pat O’Malley, Building Knowledge Inc.