Doug Rye says ...

Even more about insulation and hurray for September

Folks, it was a hot August. One day last month, it was 107 degrees in Fort Smith, 104 in Little Rock, 101 in Fayetteville and near 100 degrees in most of the rest of the state. I always worry about our readers whenever we have extreme weather conditions because I know many will be receiving high utility bills. For many of you, those bills will be hitting your mailboxes this month.

I also know that heating/cooling contractors worked many long hours this summer trying to keep systems working. I called a couple of those companies last month and they said that new callers were having to wait five to six days for service. Both bills and service are difficult for the consumer during the hot summer or cold winter.

Let's take a look at what was happening in Little Rock on Aug. 2. The sky was clear and the temperature was over 100 degrees for about six hours of the day. Using an infrared camera, one of our favorite energy tools, we took this picture of a typical house with red shingles at 1 p.m.

Notice that the shingle temperature was 173 degrees. If the temperature in the house is 75 degrees, there is a 98-degree temperature difference. Do you remember my column on the Delta T? The bigger the Delta T, the more it takes to heat or cool. If there are only shingles and roof decking between the 173 degrees and the attic, I think that you would agree that the attic temperature could easily be 150 degrees. Well, if the ductwork is in the attic or if you have little or no insulation, the house will have trouble maintaining a comfortable temperature. And even if it does, the electric bill will probably still be high.

So what is one to do?

First of all, you can add cellulose ceiling insulation as discussed last month, which will help in both the summer and the winter. Another solution would be to add a radiant barrier at the roof slope, which would lower the attic and ductwork temperature greatly in the summer. Or you can spray the entire roof deck with foam, which essentially means that there is no longer an attic at all. The space that used to be the attic is now just an odd-shaped room overhead. In most cases this is probably the best answer but it is usually the most expensive.

You can learn a lot more about foam insulation and its installation by visiting www.smartenergytips.org.

Here you can see work that is being done on the home of Bill and Mary Quilhot of Gassville, the 2010 Energy Efficiency Makeover Contest winners. (See page 14 of this issue to learn more about the makeover winners).

As we have written many times, the problem will not go away until you do something about it. Our goal is to help you know what to do. For now, let's just be thankful it is September and cooler. See you in October when it would be a perfect time to make your improvements.

P.S. I know that some you were wondering about the temperature for other shingle colors. Photos of white, black and brown shingles were also taken and revealed similar temperatures ranging from 164 to 173 degrees. So you can't say that one color is significantly cooler than the other!