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Department of Energy Updates Federal Building Energy Standard Exemption Still Exists for Alterations

Bethesda, MD, August 31, 2011—The US Department of Energy has issued a final rule updating the baseline for its Federal Building Energy Standard (10 CFR 433) to the ASHRAE Standard 90.1-2007. As a result, new federal building designs will be required to achieve higher roof R-values starting in August 2012. While this is an important step forward, the Federal Standard only applies to new construction and does not cover alterations in existing buildings

“When the Federal Standards were first developed, the model building energy codes (*i.e.*, ASHRAE Standard 90.1 and the IECC) applied only to new buildings and additions, but since 1999 and 2000, the two model codes have covered alterations as well,” noted PIMA President Jared Blum. “Unfortunately, the new Federal Standards were never revised to reflect this change.”

“It is ironic that the federal government is only looking at new construction, since states are required by the federal government under section 304(b) of the Energy Conservation and Production Act to adopt the ASHRAE Standard 90.1 or the IECC for commercial buildings, including the provisions regarding alterations. States adopting the ASHRAE Standard 90.1 or the IECC, but exempting alterations, would be in violation of this requirement. However, the federal government itself is not complying with this very same requirement,” added Blum.

According to DOE’s review of the ASHRAE Standard 90.1-1999 (which initiated the coverage of alterations in the model codes), the impact of “the expansion of this code to existing buildings could produce nearly 50% more savings than if it were applied to new buildings alone.” Covering only new construction and ignoring the installation of new components in existing buildings, such as new roofs, windows and lighting, will continue to waste significant energy and taxpayer dollars.

For purposes of new construction, the Federal Building Energy Standard also requires federal building designs to surpass the Standard 90.1 whole-building energy performance baseline by 30%, so there is likely to be pressure for further improvements in roof thermal performance above the R-20 level.

ASHRAE (The American Society of Heating, Refrigerating and Air-Conditioning Engineers) is an international technical society which publishes a well recognized series of standards and guidelines that are referenced in building codes. One such standard is ASHRAE Standard 90.1, which includes the minimum prescriptive R-value (resistance to heat flow) requirements for roof and wall insulation. More specifically, this ASHRAE Standard addresses building envelope and system requirements for commercial buildings, residential buildings higher than three stories, and semi-conditioned buildings (warehouses, etc.). It is the nation’s model standard for establishing the energy performance requirements of these building types.

In 2007, the ASHRAE Standard 90.1 committee increased the R-value requirements for this standard an historic 33% for climate zones 2 thru 8. The above-deck roof insulation requirements for those

climate zones increased from **R-15 to R-20**. This was an historic change as it marked the first time in 18 years that ASHRAE had made a change to this code and it represents [is there something missing?]

The ASHRAE Standard 90.1 and IECC requirements related to alterations do not apply to every type of alteration and, for the alterations that are covered, they only apply to the components or equipment that is being altered or replaced. In the majority of cases, the requirements apply only to new systems and equipment.

About PIMA

For over 20 years, the Polyisocyanurate Insulation Manufacturers Association (PIMA) has served as the unified voice of the rigid polyiso industry proactively advocating for safe, cost-effective, sustainable and energy efficient construction. PIMA's members, who first came together in 1987, include a synergistic partnership of polyiso manufacturers and industry suppliers. Polyiso is one of the Nation's most widely used and cost-effective insulation products available. To learn more visit www.polyiso.org.