

April 7, 2017

The Honorable Roy Cooper  
Governor of North Carolina  
Raleigh, North Carolina 27603

**Re: SB 131 (section 1.4) Proposed Building Energy Code Exemption for Warehouses**

Dear Governor Cooper:

On behalf of the Polyisocyanurate Insulation Manufacturers Association (PIMA), I would like to bring your attention to a provision in SB 131, the Regulatory Reform Act of 2016-2017, that would have a negative impact on North Carolina's energy policy and the long term health of its economy. SB 131 was approved by the Senate on March 15 and amended and approved by the House on April 6. It is my understanding that the House and Senate will work to reconcile the significant differences between the two versions of SB 131. One of these differences relates to the treatment of warehouses under the State's building energy code. The House-passed version, SB 131 would exempt all warehouses (*i.e.*, the "Storage Group S" occupancies) from the State's building energy code. The Senate-passed bill does not contain this provision. I urge you to oppose a final bill that would exempt warehouses for the State's building energy code.

The problematic provision is:

**EXEMPT CERTAIN BUILDING CODE CLASSIFICATIONS FROM ENERGY EFFICIENCY STANDARDS**

**SECTION 1.4.** G.S. 143-138 is amended by adding a new subsection to read:

"(b18) Exclusion From Energy Efficiency Code Requirements for Certain Use and Occupancy Classifications. – The Council shall provide for an exemption from any requirements in the energy efficiency standards pursuant to Chapter 13 of the 2012 North Carolina Building Code and the 2012 Energy Conservation Code, and any subsequent amendments to the Building Code and Energy Conservation Code, for the following use and occupancy classifications pursuant to Chapter 3 of the 2012 North Carolina Building Code: Section 306, Factory Group F; Section 311, **Storage Group S**; and Section 312, Utility and Miscellaneous Group U."

The four key points I would like to emphasize are: (1) warehouses represent a significant amount of energy use, which will likely increase if the exemption is enacted; (2) buildings without AC and heating and "low-energy" buildings are already exempted from the code for purposes of the envelope requirements; (3) the envelope insulation requirements for "semi-heated" buildings are already much less stringent and are cost effective; and (4) building energy codes and energy-efficiency (*i.e.*, improving energy productivity) benefits the State's economy and citizens.

**The Footprint and Energy Usage of the Warehouse/Storage Building Category is Significant:** People may have the mistaken impression that warehouses do not consume energy. In fact, most warehouses are heated and/or air conditioned and have other energy demands that are covered by a building energy code. Since 2000, warehouses have been the **largest category of buildings, representing 20% of new commercial building construction** (in terms of floor area). This is up from 13% of new construction in the 1960s. <sup>1</sup> As the country's economy continues to evolve, warehouse construction as a percentage of total commercial building construction is likely to grow even larger. Warehouses tend to be less energy intensive than other buildings, but because of their size and numbers the total energy used in warehouses is not insignificant. \$9.7 billion is spent each year on the energy used in warehouses, which represents 7% of the total commercial

<sup>1</sup> Energy Information Administration, U.S. Department of Energy, 2012 Commercial Building Energy Consumption Survey (CBECS) Tables B9 and B12.

building energy use.<sup>2</sup> If North Carolina exempts warehouses, then energy use and business costs in the state will increase.

**“Low-Energy” Buildings are Already Exempt:** Buildings that are not “conditioned” or that are considered “low energy buildings,” are specifically exempt under section 101.5.2 of the 2012 North Carolina State Building Code (Energy Conservation Code) from the thermal envelope requirements. A low energy building is defined as a building that either does not contain conditioned space or whose peak design rate of energy usage is less than 3.4 Btu/h · ft<sup>2</sup> of floor area for space conditioning purposes. The definition for “conditioned” space under the NC code is very narrow and would only apply to buildings where the heating and cooling system is designed to maintain at least 50°F in the heating season or 85° F during the cooling season.

**Requirements for “Semi-Heated” Buildings are Much Lower:** In addition, Section 501.1 of the 2012 North Carolina State Building Code (Energy Conservation Code) provide further flexibility and allows compliance with the ASHRAE Standard 90.1-2007 as an alternative to compliance with the base code. The envelope insulation requirements under Standard 90.1 are much less stringent (i.e., less expensive) for “semi-heated” buildings, which are buildings using more than a low-energy building (3.4 Btu/h · ft<sup>2</sup>), but less than 10 Btu/h · ft<sup>2</sup> in the southern part of the state or 15 Btu/h · ft<sup>2</sup> in the northern part of the state.

**Building Energy Codes Benefits the State’s Economy:** The current building energy code directly benefits North Carolina businesses by reducing their monthly energy costs. This in turn boosts the North Carolina economy by allowing businesses to spend money locally that would otherwise have been spent on utilities and fuels that are produced out-of-state. Buildings are responsible for 74% of U.S. electricity consumption and for North Carolina most of this electricity is produced by burning out-of-state coal and natural gas. In 2015, coal and natural gas provided 60% of the state's net electricity generation and all of this coal and natural gas came from out-of-state.<sup>3</sup> Exempting warehouses from the State’s building energy code will result in more money leaving North Carolina to pay for coal and natural gas produced in other states instead of being spent in the local economy.

PIMA is the national trade association for companies involved in the manufacturing of rigid polyiso foam insulation, and has a nationwide presence with facilities located across the United States, including in North Carolina. Please feel contact me if you have any questions.

Sincerely,



Justin Koscher  
President

Cc: The Honorable Michael Regan, Secretary, NC Department of Environmental Quality  
Andy Miller, Director, Legislative Affairs, NC Department of Environmental Quality  
Brad Adcock, Legislative Director, NC Office of the Governor

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<sup>2</sup> Energy Information Administration, U.S. Department of Energy, [2012 Commercial Building Energy Consumption Survey \(CBECS\) Table C2.](#)

<sup>3</sup> Energy Information Administration, U.S. Department of Energy, <http://www.eia.gov/state/?sid=NC#tabs-3>