



**PLUMBING-HEATING-COOLING  
CONTRACTORS ASSOCIATION**  
*Best People. Best Practices.*

February 25, 2020

The Honorable John Barrasso  
Chairman  
The Honorable Tom Carper  
Ranking Member  
United States Senate  
Committee on Environment and Public Works  
410 Dirksen Senate Office Building  
Washington, DC 20510

**RE: S.2754—The American Innovation and Manufacturing (AIM) Act**

Dear Chairman Barrasso and Ranking Member Carper:

On January 14, the House Energy and Commerce Subcommittee on Environment and Climate Change heard testimony and in turn, asked questions on the merits of H.R.5544, the American Innovation and Manufacturing (AIM) Act (companion bill to S.2754). The Plumbing Heating Cooling Contractors – National Association (PHCC) has been working with other industry stakeholders via coalitions and task forces on the base topic of the AIM Act, transitioning to alternate refrigerants. PHCC approaches this issue with the utmost concern, because our members must consider all aspects of these products when transitioning the workforce and ultimately clients' installations to new products.

Conversion from R-22 has been ongoing for many years with very little disruption to the industry or consumers. Parts and refrigerant continue to be available to maintain existing R-22 systems but many times aged equipment is beyond economic repair and must be upgraded. Replacing older R-22 equipment has meant using the alternate refrigerant R-410A, a substance that is incompatible with R-22 components. This reality requires complete replacement of heating and cooling systems rather than the replacement of system components. The refrigeration industry researched the alternatives and successfully adapted to the changed conditions.

There has been continuing dialogue regarding the flammability of A2L refrigerants, a concern shared by PHCC. Throughout the industry transition task force discussions, flammability has been the most debated topic. It has been referenced that refrigerants typically used today are non-flammable, and that is true when they come out of the cylinder. Once circulated through a cooling system, the refrigerant mixes with oil and will then maintain some level of flammability. Many times, systems are installed with heating equipment which has a fuel gas or fuel oil supply, which also poses some level of flammability. The industry has developed methods to minimize those risks, compliance with codes and standards being a key factor. As a contractor-

organization, PHCC places safety as the top priority: our members wish not to risk harm to the public for the sake of expediency.

The change to A2L refrigerants will have parallels to the R-22 to R-410A conversion. A2L refrigerants will require new equipment and will not be compatible with older components of air conditioning or refrigeration equipment. Workforce training will be required to understand the new installation, operation and maintenance conditions.

There will be challenges as well. Safe operation will require additional controls to monitor for leaks, start mitigation systems, and notify competent personnel of issues in the systems. The additional training required will be broader than with R-410A to ensure competent technicians work safely with these products. There will be new methods required to safely handle A2L refrigerants. PHCC believes in the need for training and certification of technicians and supports stronger enforcement of those certification requirements.

There remain challenges in the eyes of PHCC in the proposed transition. Product standards are not fully completed but are very nearly done. Building codes have yet to recognize the products, mainly due to incomplete standards, but work is progressing with code officials. The industry is working to develop comprehensive training for its workforce, which is already underway. Safety is also a paramount concern and PHCC remains confident that protections will be incorporated into all aspects of the process to protect lives and property.

Perhaps the greatest challenge is the lack of uniformity across the country. Without Federal direction, some jurisdictions are already moving forward to set requirements and establish timelines that may not be attainable. The AIM Act would solidify this activity, manufacturers could proceed with product design, building designers could plan how to proceed, the distribution chain could implement processes for handling equipment, and installing contractors could develop and train the next generation of HVAC-R technicians.

PHCC asks that this committee advance the AIM Act for Congressional action and allow the HVAC industry to move forward in its work.

Respectfully submitted,

A handwritten signature in black ink that reads "Jonathon Moyer". The signature is written in a cursive, flowing style.

Jonathon Moyer  
PHCC National Association President

The Plumbing Heating Cooling Contractors – National Association (PHCC) has represented plumbing and HVAC contractors for over 137 years. Our 3,400 plus contractor-members have significant interest in many aspects of energy related products and expect to deliver top quality products and services to their consumer clients.