

June 12, 2015

Mr. Bart Croes  
Division Chief  
Research Division  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

RE: CalEPA ARB "Short-Lived Climate Pollutant Reduction Strategy Concept Paper" (SLCP Concept Paper), issued May 7, 2015

Dear Mr. Croes,

The Extruded Polystyrene Foam Association (XPSA) appreciates the opportunity to provide these comments on the referenced Concept Paper. XPSA is a trade association representing manufacturers of extruded polystyrene foam (XPS) insulation products and the industry's raw material suppliers. Collectively, XPSA regular members (The Dow Chemical Company, Kingspan Insulation LLC, and Owens Corning, Inc.) manufacture more than 95% of all XPS destined for use in building and construction applications in the United States and Canada. Using XPS, especially in insulating sheathing, reduces the amount of energy (e.g., gas, oil, or electric) required to maintain comfortable living spaces. XPS has long-term insulating properties that indirectly reduce greenhouse gas (GHG) emissions by reducing the production and / or consumption of energy in the building sector.

Given the significant energy efficiency benefits that XPS provides to reducing GHG emissions globally, and specifically in California, XPSA is concerned about potential California regulation of HFCs as implied in the proposed Concept Paper. While the Concept Paper seems to focus on spray polyurethane, HFCs are also used in many other types of foam insulation, including XPS. There is also no proposed regulatory pathway provided for this HFC sector.

The Concept Paper identifies that a very small increase, i.e. 4% to 6% is expected in the *entire* F-gases sector (Figure 1) which translates in a rough calculation to less than 1% of total expected GHG emissions from the total Short-Lived Climate Pollution basket. XPSA therefore questions the need to address these uses of HFCs in foam insulation, especially in light of the ongoing international and national approaches to reduce F-Gas emissions from foam insulation and other uses.

- The adopted European Union F-gas regulation based on a phase down in production and import of HFCs
- The proposed Montreal Protocol phase down on the production and consumption of HFCs
- The proposed US EPA Rule on HFCs in specific applications under the Significant New Alternatives Policy (SNAP)
- The proposed Canadian regulation on production and consumption of HFCs.

XPSA strongly supports the need for alignment among all of these regulatory proposals in order to ensure a level playing field for California, US and Canadian companies and enterprises and urges California to delay any decisions on HFCs in foam until the national and international approaches are finalized.

From a technical perspective, XPSA challenges the statement on page 27 of the Concept Paper states that the “use of HFC’s in foams could be quickly addressed”. The proposed EPA SNAP rule would phase out HFCs, specifically HFC 134a, in XPS in January 1, 2017. Through XPSA’s engagement with EPA regarding their proposed SNAP HFC regulation, XPSA outlined the challenges surrounding a rapid phase out of HFCs in our products.

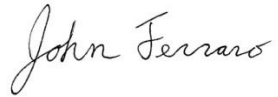
- *The XPS industry engaged in two other SNAP program transitions.* EPA provided a total of 13 years to switch from chlorofluorocarbons (CFCs) to hydrochlorofluorocarbons (HCFCs) in the 1990’s and then from HCFCs to HFCs from 2000-2010. The industry was not notified by EPA that it would propose prohibiting the use of HFC-134a, despite transitioning to HFC-134a in 2010.
- *Nearly 80% of the XPS industry relies on HFC-134a to produce XPS.* Unique technical challenges have inhibited efforts to identify a substitute for HFC-134a that provides similar thermal efficiency, is cost-effective, is commercially optimized, and is safe for XPS use.
- *EPA identified several substitutes for HFC-134a in the proposed rule.* All have significant drawbacks, including: poor thermal efficiency, flammability issues, processing difficulties, and limited global availability – making these options significantly more expensive than HFC-134a.
- *The proposed SNAP rule provides the XPS industry with inadequate time to identify and transition to a suitable alternative to HFC-134a.* EPA proposed prohibiting the use of HFC-134a in XPS by January 1, 2017. The XPS industry accounts for a small portion of world-wide HFC consumption and has little leverage to encourage the development of alternatives. Larger HFC consumers were given more time to transition despite having leverage to encourage the development of alternatives (the motor vehicle air conditioning systems (MVAC) sector was given until 2021).
- *EPA’s deadline for the XPS industry is inconsistent with and much more aggressive than the deadline proposed in the amendments to the Montreal Protocol or the deadline established by the EU.* As the rest of the world has acknowledged, more time is needed to innovate and develop appropriate alternatives for the XPS industry.
- *To cease using HFC-134a, the XPS industry must undertake equipment modifications, engage in pilot-scale and plant-scale trials, obtain new permits and approvals, secure financing, and address commercialization issues.* It will take approximately 6 years to complete these steps; however, the proposed rule provides only 2 years – an insufficient amount of time to complete this transition, particularly when no suitable alternative has been identified at this time.
- *EPA has greatly underestimated the cost to transition to other alternatives.*

The Concept Paper does not explore the effect of any regulation of HFCs in foam insulation on the building energy efficiency goals in California. For example, the California Energy Commission met on June 10, 2015 to approve significant improvements in the California Energy Code, much of which relies on increased use of foam insulation. This coordination is essential, along with a cost benefit analysis before any regulatory action is taken.

There is also a referral in the Concept Paper to consider reductions in HFCs by removal and destruction of CFCs and HCFCs from landfilled foam insulation waste or at the time of building demolition. This idea was evaluated several years ago by an earlier CARB proposal which later concluded that this would be cost prohibitive and result in a negative net benefit to California GHG emission reduction goals. This concept should be abandoned.

XPSA looks forward to continued discussions and commits to participation at upcoming workshops on this topic. If more information is needed or if you have any questions, please contact me by telephone at 202-207-1121 or by email at [jferraro@kellencompany.com](mailto:jferraro@kellencompany.com).

Sincerely,

A handwritten signature in black ink that reads "John Ferraro". The script is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

John Ferraro  
Executive Director  
Extruded Polystyrene Foam Association (XPSA)  
529 14<sup>th</sup> Street NW, Suite 750  
Washington, DC 20045

