March 12, 2020

NYS Department of Environmental Conservation
Office of Climate Change
Attn: Suzanne Hagell, PhD
625 Broadway
Albany, NY 12233
climatechange@dec.ny.gov

Re: Proposed Part 494 – Hydrofluorocarbon Standards and Reporting
Polyisocyanurate Insulation Manufacturers Association Public Comments

Dear Dr. Hagell:

The Polyisocyanurate Insulation Manufacturers Association1 (“PIMA”) appreciates the opportunity to comment on the New York State Department of Environmental Conservation’s (“Department”) Proposed Part 494 Hydrofluorocarbon Standards and Reporting (“Proposed Rule”). PIMA represents North American manufacturers of laminated polyisocyanurate insulation board products (“polyiso insulation”). Our members include Atlas Roofing Corporation, Carlisle Construction Materials, Firestone Building Products, GAF, Johns Manville, IKO Industries, Rmax, and Soprema. These manufacturers account for the majority of polyiso insulation produced and sold in North America, including New York.2

PIMA supports the State’s efforts to reduce harmful emissions of greenhouse gases through restrictions on the use of hydrofluorocarbons (HFCs) with high global warming potential (GWP) in the foam sector. Our comments respectfully request that the Department (1) narrowly tailor the Proposed Rule’s requirements for written disclosures to current end-uses of HFCs and (2) eliminate the record-keeping requirements for all end-uses. The rationale for our proposals is explained below.

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2 PIMA members operate polyiso insulation manufacturing facilities in the State of New York.
1. **Introduction to Polyiso Insulation**

Polyiso insulation is a rigid foam board product used to insulate roofs, walls, and other components of commercial and residential buildings. With respect to the blowing agent substances used to manufacture polyiso insulation, manufacturers in the North American market use pentane (or pentane blends) in their product formulations and have done so for more than twenty years.

Pentane is a non-ozone depleting, low GWP substance that offers an economical solution for polyiso insulation products and delivers exceptional thermal resistance that contributes to polyiso insulation’s high R-value – the primary physical property for thermal insulation products. Furthermore, polyiso insulation manufacturers have made significant capital investments in modifying existing facilities and constructing new plants that allow for the safe use of pentane technology in the manufacturing process. More information on the polyiso industry’s use of pentane blowing agents can be found in the attached performance bulletin.³

2. **PIMA supports the prohibitions included in Section 494.4 of the Proposed Rule.**

PIMA supports the listing of the substances in Section 494.4 for the end-use category that applies to polyiso insulation products (“Rigid Polyurethane and Polyisocyanurate Laminated Boardstock”). Furthermore, PIMA does not object to the prohibition date of January 1, 2021 for the aforementioned end-use category.

3. **PIMA proposes modifications to the Proposed Rule that would limit the applicability of Section 494.6 Disclosure Requirements.**

PIMA understands that the intent of Section 494.6 Disclosure Requirements is to inform buyers of whether the regulated substances are used in a particular product or equipment. This intent must also be consistent with the overall purpose of the Proposed Rule, which is to regulate and eliminate current uses of high-GWP HFC substances. Therefore, consistent with the regulatory intent of the Proposed Rule read as a whole, PIMA proposes the following modifications that would limit the applicability of the disclosure requirements to equipment and products that currently use the regulated substances.

³ The attached performance bulletin is available online at the PIMA website here: https://www.polyiso.org/resource/resmgr/performance_bulletins/2020/PIMA_PerfBull_LowGWP_Final01.pdf.
Proposed Modification Option #1:

§ 494.6 Disclosure Requirements
(a) Any equipment or product listed as an end-use in Section 494.4 of this Part where the equipment or product contained or used a substance listed as prohibited in Section 494.4 of this Part as of [Effective Date of Part 494], or where the use of the prohibited substance has been initiated or resumed at any time after that date, person who manufactures for sale or entry into commerce in the State of New York new motor-bearing equipment or new foam blowing agents in the end-uses listed and after the applicable prohibitions in Section 494.4 of this Part, must provide: (i) a written disclosure statement to the buyer as part of the sales transaction and invoice; or (ii) a label on the motor-bearing refrigeration equipment or foam-blowing agent.

Proposed Modification Option #2:

§ 494.2 Applicability
(c) The disclosure requirements in Section 494.6 of this Part shall apply to any equipment or product listed as an end-use in Section 494.4 of this Part where the equipment or product contained or used a substance listed as prohibited in Section 494.4 of this Part as of [Effective Date of Part 494], or where the use of the prohibited substance has been initiated or resumed at any time after that date.

PIMA’s proposed modifications fulfill the Department’s legitimate objective of informing buyers whether purchased equipment or products – that are part of an end-use category where the use of high-GWP HFCs is common or ongoing – actually contain the prohibited substances. At the same time, our proposed modifications would not require written disclosures for equipment or products that do not use high-GWP HFCs as of a date certain (i.e., the effective date of Part 494). As stated above, this result is consistent with the Department’s intent to regulate and eliminate the use of the prohibited substances.

The proposed modifications would also align the Department’s regulations with the requirements adopted by other jurisdictions. The California Air Resources Board agreed with PIMA’s argument to exclude polyiso manufacturers when it eliminated a proposed labeling requirement for end-uses that categorically do not use HFC substances. CARB concluded that labeling was unnecessary for end-uses that “have already transitioned out of using HFCs . . . [where] the risk that these end-uses revert to prohibited HFCs is low.”

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Washington State’s draft rule has evolved to include a clear statement that the labeling requirements do not apply to all end-uses. The draft rule uses the effective date of the enabling legislation to create a cutoff date for those end-uses (products and equipment) subject to the labeling requirements.\(^5\)

Notwithstanding the proposed modification above, PIMA supports the Department’s inclusion of subsection 494.6(b) that allows for compliance via the regulatory requirements of other jurisdictions. This flexibility is important as manufacturers produce or distribute products intended for use across state lines. Furthermore, the term “foam-blowing agent” as used within section 494.6 is confusing. We suggest using commonly understood terms like “equipment” or “product” when referring to the object intended to be labeled. Finally, any disclosure requirement should allow for the labeling of products or product packaging as labeling individual product units may not be feasible or practical.

4. **PIMA proposed to eliminate Section 494.7 Record-Keeping Requirements from the Proposed Rule.**

The Proposed Rule’s requirements for record-keeping are not necessary for the effective enforcement of the prohibitions included in Section 494.4, overly broad in that the requirements apply to manufacturers that do not use the prohibited substances, and would create inconsistencies with other jurisdictions’ regulations. The actual equipment or product sold within New York is the best evidence of compliance. The administrative requirements of Section 494.7 will not deter bad actors and only create additional administrative burdens for good actors. For these reasons and consistent with the actions of other jurisdictions, PIMA proposes that the Department strike in whole Section 494.7 Record-Keeping Requirements from the Proposed Rule.

**Proposed Modification:**

\[\text{§ 494.7 Record-Keeping Requirements [Strike section in its entirety.]}\]

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5. Conclusion

PIMA appreciates the opportunity to comment on the Proposed Rule. We would be pleased to explore the viability of the proposed modifications described above with the Department. Please contact me at jkoscher@pima.org or (703) 224-2289 should additional information be helpful to your deliberative regulatory process.

Respectfully submitted,

Justin Koscher
President
Insulation and Blowing Agents

Closed-cell foam insulation products like polyiso are manufactured with captive blowing agents. The blowing agents are primarily used to increase the final product’s thermal resistance or R-value. The substances are also an integral part of the manufacturing process helping to produce the ideal cell structure.

In closed-cell products, the blowing agents are retained within the cell structure to provide long-term thermal performance. And while closed-cell insulation products can exhibit an initial drop in R-value due in large part to the diffusion of air into the foam, all polyiso insulation products are tested to reflect an aged (i.e., long-term) R-value.¹ For more information on polyiso’s R-value and the applicable testing requirements, visit the PIMA website.

Insulation products manufactured without captive blowing agents (e.g., expanded polystyrene, fiberglass, mineral wool) result in lower R-values per inch. Therefore, these products must be installed at greater thicknesses to equal the high R-value of polyiso insulation.

Polyiso + Pentane = Environmental Leadership

Polyiso products are manufactured using pentane or pentane blends.² Pentane is a hydrocarbon with zero ozone depletion potential ³ (ODP) and low global warming potential (GWP). GWP is a measure of a substances ability to trap heat in the atmosphere and is calculated over a specific period of time (commonly 100 years). Specifically, GWP measures how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO₂.⁴ A substance that traps more heat will contribute more to global warming (and will be assigned a higher GWP value). Therefore, products that incorporate low-GWP blowing agents provide insulation solutions that offer reduced environmental footprints.

Notes:

1 The U.S. Federal Trade Commission’s R-value Rule requires that tests performed on samples of polyiso insulation reflect the effect of aging on the product’s R-value (Labeling and Advertising of Home Insulation, 16 CFR Part 460).

2 Pentane is used as a general term to describe the different pentane isomers or mixtures of isomers used by polyiso manufacturers. Isomers are molecules with the same molecular formula, but different bonding patterns. In terms of environmental impacts, all pentane isomers have the same GWP.

3 Ozone depletion potential, or ODP, is a relative measure of substance’s contribution to the degradation of the ozone layer. For more information, visit: https://www.epa.gov/ozone-layer-protection/basic-ozone-layer-science.

4 Visit the U.S. EPA’s webpage, Understanding Global Warming Potentials, for more information: https://www.epa.gov/ghgemissions/understanding-global-warming-potentials.
For over 20 years, the polyiso industry has utilized pentane in product formulations. These products replaced formulations using CFCs and HCFCs, which are no longer permitted for use in insulation products in major markets, including the United States and Canada. The transition to pentane blowing agents was preceded by years of research and development. As a result of these efforts, the polyiso industry was recognized by the U.S. Environmental Protection Agency with the Stratospheric Ozone Protection Award for leadership in the phase-out of CFCs and exceptional contributions to global environmental protection. Please refer to PIMA’s Environmental Product Declarations for additional information regarding GWP and polyiso’s overall environmental performance.

Comparing Polyiso to Other Insulation Products

Not all closed-cell foam insulation products are created equal when it comes to the environmental impacts of their blowing agents. **Pentane has a GWP of less than 10.** Other insulation products still utilize hydrofluorocarbon (HFC) blowing agents, which can have a GWP of 1300 or higher. This is more than 100 times the global warming impact of pentane used in polyiso insulation.

As a category, other closed-cell insulation products are transitioning to blowing agents with lower GWP in part as a response to international and domestic regulations. However, not all blowing agent substitutes are equivalent. In Canada, regulations prohibit the manufacture, import or sale of foam plastic insulation products that contain a blowing agent with a GWP greater than 150. The U.S. Environmental Protection Agency does not enforce GWP limits for blowing agents used in foam insulation products. However, several states have, or are in the process of, enacting prohibitions on the use of certain HFC blowing agents in foam insulation products manufactured or sold within their jurisdictions.

Environmental Product Declarations

GWP is an important measure of a product’s impact on the environment, but there is a larger story to tell for insulation products like polyiso. The polyiso insulation industry provides stakeholders with information on the environmental impacts of its products through the publication of Environmental Product Declarations (EPDs). An EPD is an internationally recognized and standardized tool that

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6 For example, XPS insulation is typically manufactured with HFC-134a. This compound has a GWP of 1430. Source: The Intergovernmental Panel on Climate Change, Fourth Assessment Report, Chapter 2 - Changes in Atmospheric Constituents and in Radiative Force (available at: [https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf)).


8 U.S. EPA SNAP Rules 20 and 21 were partially vacated by a decision of the Court of Appeals for the District of Columbia Circuit (Mexichem Fluor, Inc. v. EPA). As a result, EPA has issued interim guidance to stakeholders that the Agency will not enforce certain prohibitions that limit the use of blowing agents based solely on GWP (available at: [https://www.govinfo.gov/content/pkg/FR-2018-04-27/pdf/2018-08310.pdf](https://www.govinfo.gov/content/pkg/FR-2018-04-27/pdf/2018-08310.pdf)).

9 Information on state-level activities is available via the United States Climate Alliance: [http://www.usclimatealliance.org/slcpchallenge](http://www.usclimatealliance.org/slcpchallenge). Under certain state laws or regulations, replacement substitutes may still have a GWP of nearly 750.
For more information on polyisocyanurate insulation, visit www.polyiso.org.

PIMA

For more than 30 years, the Polyisocyanurate Insulation Manufacturers Association (PIMA) has served as the voice of the rigid polyiso industry, proactively advocating for safe, cost-effective, sustainable, and energy-efficient construction. Organized in 1987, PIMA is an association of polyiso manufacturers and industry suppliers. Polyiso is one of North America’s most widely-used and cost-effective insulation products.

PIMA produces performance bulletins to provide technical and industry information on key topics related to insulation performance. The resources provide the public with information that can be used to evaluate polyiso insulation products and compare their performance to other common insulation types. Industry professionals should review individual polyiso manufacturer resources for product-specific information.

For more information on polyisocyanurate insulation, visit www.polyiso.org.