

May 27, 2015

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

Re: Short-Lived Climate Pollutant Reduction Strategy Concept Paper

Dear Mr. Croes:

I am writing on behalf of the Alliance for Responsible Atmospheric Policy ("Alliance") to provide comments regarding the Short-Lived Climate Pollutant (SLCP) Reduction Strategy concept paper produced by the Air Resources Board (ARB).

The Alliance is an industry coalition organized in 1980 to address the issue of stratospheric ozone depletion. It is the leading voice of manufacturers, businesses and trade associations who make or use fluorinated gases for the global market. Today, Alliance member companies are leading the development of safe, efficient, next-generation, climate- and ozone-friendly technologies and applications. According to a recent study, the US fluorocarbon using and producing industries contribute more than \$158 billion annually in goods and services to the US economy, and provide employment to more than 700,000 individuals with an industry-wide payroll of more than \$32 billion. The Alliance represents more than 100 companies across several sectors engaged in the development of economically and environmentally beneficial international and domestic policies regarding fluorinated gases. Many of our members are active in the California market.

A list of Alliance member companies is attached, some of whom may also submit written comments. As our members would be most impacted by the HFC components of the SLCP reduction strategy, it is on that area of the concept paper that these comments will focus.

The Alliance is proud of its extensive history of working in a constructive manner with ARB, the US government and with international bodies on the protection of stratospheric ozone and the mitigation of climate change. Our membership worked closely with US Senator Chris Murphy in the development of his SLCP legislation introduced in 2014 and the Alliance is active as a non-state actor in HFC Initiative under the global Climate and Clean Air Coalition (CCAC) to

Reduce SLCPs (An Alliance statement made during the recent CCAC High Level Assembly in Geneva is also attached for reference).

Our membership believes that an effective means of reducing the future climate change contribution of HFCs must be global in nature. It also must do so in an orderly, flexible fashion which allows companies to continue to fulfill consumers' need for our products and technologies which are vital to public health, food safety, energy conservation, comfort and productivity. The Montreal Protocol has met both of these standards when successfully addressing CFCs and HCFCs. We believe an amendment to address HFCs would do so as well.

The Alliance appreciates the close attention ARB has paid to developments in the Montreal Protocol. We have sought to provide timely updates to ARB on industry's perspective towards progress in Protocol amendment discussions and the significant effort industry is contributing to facilitate the transition from high global warming potential (GWP) HFCs. That effort has taken the form of directly supporting diplomacy towards a Protocol amendment, as demonstrated by our participation on the India-US HFC Task Force, as well as spending some \$5 billion dollars over the next decade in research, development and commercialization of new technologies for the global market.

The Alliance believes the cap and reduction model reflected in the amendment provides a far better approach for cost-effective action than do unilateral sub-global command and control regulations. The Alliance has also advocated this global cap and reduction approach as part of the Montreal Protocol process as a far better mechanism than the use of the US Environmental Protection Agency's (EPA) Significant New Alternatives Policy (SNAP) de-listing authority used in federal policy. We encourage ARB to develop an SLCP reduction strategy which is consistent with this cap and reduction model rather than a series of command and control restrictions.

As the ARB is likely aware, Environment Canada earlier this year responded to industry concerns over reliance on SNAP-like sector-based prohibitions in developing its own HFC regulations. The department changed course and proposed a hybrid model, which incorporates a gradual phase-down of HFCs consistent with the phase-down schedule proposed by the North American parties to the Montreal Protocol.

The Alliance appreciates ARB's procedure of consulting with interested stakeholders in advance of developing its SLCP reduction strategy. In order to achieve the environmental goal of these potential regulations, it is critical to understand the variety of challenges and opportunities present in the transition from high-GWP technologies. A global phase-down will allow the markets to determine which technologies transition first, providing certainty on the environmental benefits while providing adequate transition time for sectors where alternatives are not yet readily available. The Montreal Protocol has succeeded because it has been able to accommodate these nuances and has relied on long-term management principles to achieve the desired environmental policy objectives.

In terms of the timeline proposed in the concept paper, the Alliance encourages ARB to ensure that benchmarks are chosen with consideration of other critical timelines affecting the transition from high-GWP HFCs, including the Montreal Protocol process, the US EPA's SNAP rulemaking schedule and the US Department of Energy's (DOE) efficiency standards rulemaking process. Misaligned transition dates impose significant and unnecessary cost, burden, and complexity on industry.

On ARB's proposed goals intended to form the foundation of the SLCP reduction strategy, the Alliance especially supports: "Achieve Scientific-Based Targets" and "Identify Practical Solutions to Overcome Barriers." Both concepts resonate well with our belief that while substitute technologies are evolving rapidly, HFC management efforts must be based on actual technology availability.

On the overall goal of exploring measures to reduce HFC use in California by an additional 40 percent by 2030 on top of the 40 percent reduction expected as a result of AB 32 and proposed federal rules, the Alliance believes that 2050 is a more feasible target. Achieving an 80 percent reduction by 2030 is sooner than found in any of the current HFC phase-down proposals under the Montreal Protocol. Next-generation technologies and applications must be developed, commercialized and widely deployed in order to achieve significant reductions in high-GWP HFC use. As part of that process, those technologies must be adopted by domestic and international code-setting organizations. Existing code and standards restrictions could pose challenges to companies attempting to move towards lower-GWP alternatives, while meeting the demand for their products from consumers in California. Combined, those elements of the transition require more time than proposed in the concept paper.

ARB has proposed to consider measures to achieve further transition to low-GWP alternatives in a number of specific sectors. The Alliance encourages ARB to specify its definition of "low-GWP." It is important that ARB avoid unintended consequences by considering to what extent alternatives meeting that definition are commercially available.

On reducing leaks from existing equipment and at end-of-life, the Alliance supports the responsible use of refrigerants. We know that the majority of refrigerant emissions occur during charging, service and disposal of air-conditioning and commercial refrigeration units. That is why in January 2014, the Alliance submitted a petition to extend the regulations under Section 608 of the federal Clean Air Act to HFCs and other substitutes for class I and class II ozone-depleting substances. These policies have proven effective in limiting ODS emissions and, as seen at EPA's November 2014 stakeholder meeting in response to our petition, most stakeholders believe those provisions will be equally effective at limiting HFC emissions.

As industry we are moving forward with voluntary measures to promote the responsible use of refrigerants. At the September 2014 UN Climate Summit, the Alliance, in conjunction with the Air-Conditioning, Heating and Refrigeration Institute and ABRAVA, the Brazilian Association for HVAC-R, launched the Global Refrigerant Management Initiative under CCAC to reduce leaks and service emissions throughout the industry's global supply chain. In addition to

exploring options to improve education, training and certification, the initiative will promote the recycling, recovery, reclaiming and end of life destruction of refrigerants and develop additional policies to promote proper refrigerant management. This initiative has already received the support of industry associations from 9 countries and the EU, representing 4 continents, and has begun initial activities in 2015.

On the proposed early action to reduce emissions from commercial refrigeration, ARB suggests it may link this effort to existing energy efficiency programs. The Alliance encourages ARB to remain technology neutral in the design of this linkage, but agrees that consideration of the energy efficiency and life cycle climate performance (LCCP) of equipment is critical to designing a sustainable HFC climate policy.

The Alliance welcomes the opportunity to consult directly with ARB to answer further questions relevant to its SLCP reduction strategy to ensure that it is consistent with efforts in the Montreal Protocol to address HFCs. We are ready to work to ensure the avoidance of the rapid global growth scenarios in the use of HFCs, and to promote the development and implementation of substitute technologies that allow for a manageable transition around the globe.

The membership of the Alliance is proud of the industry contribution to the development of alternatives to high-GWP compounds and their implementation in equipment and products. Government, industry and other stakeholders must remain focused on supporting a global transition to these alternatives. The Alliance thanks ARB for providing an opportunity to comment and looks forward to working in a constructive manner to address HFCs. If you have any questions, please feel free to reach me at fay@alliancepolicy.org or (703) 243-0344.

Sincerely,

Kevin Fay

Executive Director

Alliance for Responsible Atmospheric Policy



Members

AGC Chemicals Americas

A-Gas/RemTec

Air-Conditioning, Heating &

Refrigeration Institute

Airgas

American Pacific Corp.

Arkema

Association of Home

Appliance Manufacturers

Auto Care Association

Bard Manufacturing Co.

BASF

Brooks Automation, Inc.

Cap & Seal Company

Carrier Corporation

Center for the

Polyurethanes Industry

Combs Gas

Consolidated Refrigerant

Solutions

Daikin Applied

Danfoss

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Dynatemp International

Emerson Climate

Technologies

E.V. Dunbar Co.

Extruded Polystyrene Foam

Association

Falcon Safety Products

FP International

Golden Refrigerant

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Refrigeration Distributors

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Hudson Technologies

Hussmann

ICOR International

IDQ Holdings

Ingersoll-Rand

International Pharmaceutical

Aerosol Consortium

Johnson Controls

Lennox International

Metl-Span Corporation

Mexichem Fluor Inc.

Midwest Refrigerants

Mitsubishi Electric

National Refrigerants

Owens Corning Specialty &

Foam Products Center

Rheem Manufacturing Company

Ritchie Engineering

Solvay

Sub-Zero

The Dow Chemical Company

Trane Company

Whirlpool Corporation

Worthington Cylinder

Statement of

Kevin Fay, Executive Director

International Climate Change Partnership

And

Alliance for Responsible Atmospheric Policy

Climate and Clean Air Coalition

High Level Assembly

May 20, 2015

Geneva, Switzerland

"Lima-Paris Action Agenda & Road to Paris"

Thank you, Co-Chairs and Colleagues.

On behalf of the International Climate Change Partnership and member companies of the Alliance for Responsible Atmospheric Policy, a member, I wanted to briefly update our partners on private sector-led efforts under the Coalition's HFC Initiative which will support the climate goals of COP21.

For those who are new to the Alliance, its members consist of manufacturers, businesses and their trade associations which make or use fluorinated gases for the global market. Today, Alliance member companies are leading the development of safe, efficient, next generation, climate- and ozone-friendly technologies and applications.

At the UN Secretary-General's September 2014 Climate Summit, the Alliance had the honor of announcing the HFC Initiative's action plan to reduce the climate change contribution of HFCs. In addition to support for the negotiation of an HFC phasedown amendment under the Montreal Protocol and the promotion of gradual public procurement of alternatives to high-global warming potential HFCs where feasible, two industry-led elements of that plan, spearheaded by ICCP and the Alliance, were the creation of the Global Food Cold Chain Council and the launch of the

Global Refrigerant Management Initiative. The Global Food Cold Chain Council seeks to increase the use of climate-friendly technologies to extend the benefits of the food cold chain around the world, while the Global Refrigerant Management Initiative seeks to reduce emissions from the servicing of applications containing HFCs. I am proud to report to you that both initiatives have since hit the ground running.

The founding member companies of the Global Food Cold Chain Council have developed bylaws, a budget, initial priority activities and are meeting regularly. Additionally, we are also working to identify linkages with the UN Food and Agriculture Organization on steps to link the Food Cold Chain to efforts to reduce global food waste. According to FAO, if global food waste were ranked against country emissions, it would be the third highest emitter of greenhouse gases, or more than 3 billion metric tons of CO2 equivalent annually.

A more efficient and low-GWP food cold chain can reduce food waste, contribute to a greater food supply for a hungry world, and reduce stress on fresh water supplies. Precisely the type of environmental and health cobenefits CCAC is committed to delivering.

The Global Refrigerant Management Initiative has completed its charter, and is scoping out its organization and activities, recruited founding member organizations representing industry that accounts for more than 95% of global air conditioning and refrigeration manufacture, and identified a number of promising global partnerships.

The refrigerant management in initiatives first goal will develop a uniform education, training, and certification module that will help the global service sector to better manage refrigerant service and disposal emissions, the prime source of HFC emissions, as well as important training on safe use of the new low-GWP alternatives.

In their next phase, both initiatives will broaden their activities to include stakeholders in the government, intergovernmental and NGO communities.

Industry has a unique role to play in addressing the SLCP contribution to climate change. Although historically companies have been categorized more as a part of the problem of climate change, the ICCP and Alliance member companies are among those in the private sector demonstrating how they can in fact be drivers at the center of action to address climate change.

Industry's cutting-edge technologies and practices can change emissions trajectories. We know that COP21, more than any previous COP, seeks to empower industry – its perspectives, interests and operations - as agents of positive change. The Global Food Cold Chain Council and the Global Refrigerant Management Initiative have already begun to take up that challenge and will do so increasingly in the coming months and years.

As a reminder, the overall HFC initiatives culminate with the Montreal Protocol amendment, which can achieve reductions of up to 100 gigatons of CO2 equivalent by 2050. A significant downpayment towards the global goals hoped for in COP21.

Private Sector participation in the CCAC and its initiatives is one of the keys to achieving our common success. Thank you.