THE NEW ERA GROUP INC.

October 30, 2015

Mr. Richard Corey
Executive Officer
California Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Comments on Draft Short-Lived Climate Pollutant (SLCP) Reduction Strategy

Dear Mr. Corey:

The New Era Group, Inc. would like to thank the Air Resources Board for considering our suggestions and recommendations in the matter of ***Short Lived Climate Pollution Reduction Strategy.*** New Era Group, Inc. is a non-profit consulting group that represents the interest of independent refrigerant manufactures, reclaimers, importers and repackagers. Our efforts and focus is to provide factual information for our members without a bias towards the industry over the environment.

New Era is very aware of the challenge that CARB faces to establish meaningful regulatory changes that will protect the public health and safety of the residents in the State. The hardest part of this undertaking is to attempt to strike a balance within the context of the environment and at the same time, not be overly restrictive of industries that operate in the State.

While this is an undertaking for California, New Era is aware of the implication to the Nation of any CARB Action. We will stress that there are many nuances that are unique to the concept of Refrigerant Management. It is our intent to suggest concepts and justifications that are all inclusive and forward thinking.

The history of these chemicals must be the foundation of this important issue. In 1928, the nation was given the chemical chlorofluorocarbons. While the science was unyielding to develop these products, there was no consideration given to the effects that they would have on the environment or public health and welfare. We have been faced with three classes of refrigerant gases since then and are now faced with HFOs.

New Era Group, Inc. and its members are supportive of CARBs SLCPRS, However, the draft as presented leads the reader to believe that all stakeholders have been properly represented. Further certain statements are conclusions not based in fact.

The Draft takes an ambitious assumption to the transition from the Ozone Depleting HCFC-22 refrigerant and the current HFC alternatives. The United States Environmental Protection Agency in the early days of the Clean Air Act published that there were more than 80,000 CFC Chillers in the United States. Even today there is a significant CFC Chillers in operation.

CARB cannot place the vast number of residential homeowners in the same sector as the Green Chill Partnership or the Large Centrifugal Chillers. The assumption that homeowners will wait until new low GWP systems to make their way to market is unreasonable. Frankly we would ask that CARB look at nearly 1 billion dollars in air-conditioning equipment that has been imported to the United States in one year.

EPA Green House Gas Reporting[1]

Table 1: Number of Suppliers that Reported (2013)

Industry Sector	Number of Reporters1
Suppliers of Coal-Based Liquid Fuels	1
Suppliers of Petroleum Products	232
Suppliers of Natural Gas and Natural Gas Liquids	
Natural Gas Local Distribution Companies	379
Natural Gas Liquids Fractionators	124
Suppliers of Industrial GHGs and Products Containing GHGs	
Industrial GHGs	56
Imports and Exports of Equipment Pre-charged with Fluorinated GHGs or Containing Fluorinated GHGs in Closed-cell Foams	47
Suppliers of Carbon Dioxide	143

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The HCFC-22 refrigerant is being replaced with HFCs that have higher GWPs, thus increasing the GHG impact of refrigerants. We expect that in anticipation of the HCFC-22 phase-out beginning in 2020, most owners of equipment using HCFC-22 will either replace the equipment by 2020, or at a minimum replace the HCFC-22 refrigerant in the same equipment (retrofit) with a high-GWP HFC refrigerant. A window of opportunity exists in the next five years to accelerate the transition of refrigeration and air-conditioning equipment to lower-GWP refrigerants, before another generation of equipment is locked into using higher-GWP refrigerants over their average lifetimes of 15 to 20 years.

[1] http://www.epa.gov/ghgreporting/ghgdata/reported/supplier-highlights.html

CARB cannot suggest that the road to lower emissions rest within the new HFO or HFO Blends.

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Current fire and appliance codes do not allow the use of slightly flammable refrigerants such as hydrocarbon refrigerants and the new HFO-HFC blends (unless the system is below a small charge size threshold of 157 grams for commercial-retail uses, and 57 grams for residential uses).

What the draft states as an EPA Policy in the Final SNAP Rule on the matter of delisting of refrigerants at a cut off point of 2,500 GWP has never been published by EPA. If this is the current stated Policy that CARB has decided on then it should be stated as such. Do not use the United States Environmental Protection Agency for cover or vise versa clear signals by CARB is a should be the goal

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In July 2015, the U.S. EPA adopted a ban on using refrigerants with a very-high 100-year GWP of 2500 or greater in new and retrofitted refrigeration systems at retail food facilities beginning in the second half of 2016. Several refrigerants are currently available with a 100-year GWP of less than 1500 that can be used in existing equipment designed for higher-GWP refrigerants.

It seems as if the issue of GWP is a moving target

Page 64 refers 2,500 GWP page 63 references 1,500 GWP then later on page 63 750 GWP

Several refrigerants are currently available with a 100-year GWP of less than 1500 that can be used in existing equipment designed for higher-GWP refrigerants.

January 1, 2015, manufacturers are already developing air-conditioning systems that use refrigerants with a 100-year GWP of less than 750.

Within the context of this draft we see no explanation why 2,500 GWP as the cut off. This number both as used here and the referenced as an EPA Regulatory Base-Line is arbitrary. Shouldn't CARB's role as leader recognize that we are in the midst of phasing out HCFC's and should clearly do so before taking an over aggressive action on HFC's. After all the HFC's are much better per the Clean Air Act and the Montreal Protocol and are a great first step in environmental improvements.

HCFC Consumption	2015	2016	2017	2018	2019	2020
Proposed	13,700	10,900	8,200	5,500	2,700	0
Final Rule	10,000	8,000	6,000	4,000	2,000	0
Reduction from Proposed	3,700 -27%	2,900 -26%	2,200 -26%	1,500 -27%	700 -25%	0 0%

We strongly support and recommend the recovery and re-use of all refrigerants through the EPA 608 Program. While this is a goal now, we would also like to point out in the equipment rule 2009 did not go far enough to require the use of reclaimed refrigerants. One of many considerations on that issue was how would you prevent a gaming of the system by current definition of reclaiming as well as the practice of blending off specification material back to the AHRI 700 Purity Standard. CARB can be proactive in this area.

The CARB Proposal must consider all the Class II alternatives that are commercially viable, like Choice R421A, MO99 (R438A), and others.

This issue was brought out and verified in the Staff Report of the International Trade Commission Case # 731-TA-1279. The statistical data showed that there are more than 44 Class II alternatives used in the United States.

We would hope that the methodology to achieve the stated mandated CO_2e reductions of 40% by the year 2030 would include or at least consider all products and not those that Large Chemos stated as being most promising. There are many gases that are being used and sold in California that are not being tracked in anyway

There are three challenges to the SNAP Final Rule that are being briefed now which may re-frame the HFC issue at the Federal level.[2]

The draft seems to be confusing as it relates to refrigerant usage. The draft makes assumptions that from the sheer age of equipment it will be retired. In addition the five-year replacement concept does not consider that air-conditioning units are being produced around the world and sold in accordance with United States Department of Energy's Seasonal Energy Efficiency Rating. SEER 14.

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[2] *Mexichem Fluor Inc. v. EPA*, D.C. Cir. , No. 15-1328, 9/17/15; *Arkema Inc. v. EPA*, No. 15-1329, *D.C. Cir.*, 9/17/15; *Compsys Inc. v. EPA* (D.C. Cir. 2015)

Consider a 10-year useful life this equipment will be in service until 2025. The report acknowledges there are no systems available today that use the new low GWP HFO's.

Over all the issue of equipment replacement is one that homeowners, the least informed, will be at the mercy of contractors who are motivated by profit. The economic impact on the large install base of refrigerant in residential units will not change in the same fashion as commercial and industrial groups.

There is considerable question as to the emissions data used to support the success of RMP/R3.

The 8% leak rate doesn't appear to be reasonable as it relates to the National Averages. New Era is not aware of anyone either EPA or private industry that collects data concerning residential leak rates. Is CARB making a guess?

Figure 8: California 2013 F-gas (Hydrofluorocarbons) Emission Sources*

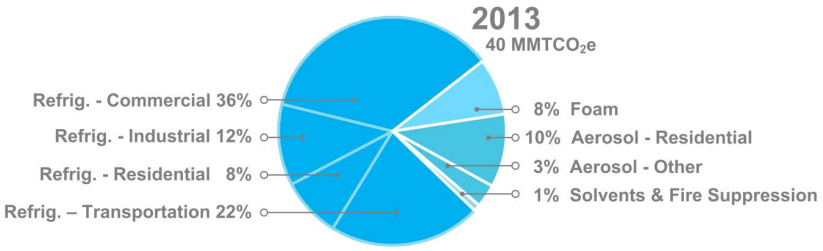
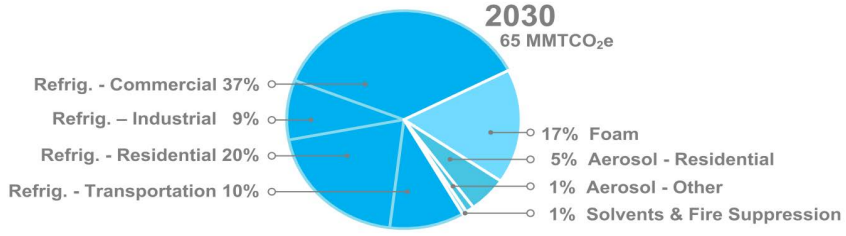


Figure 9: California's 2030 F-Gas Emission Sources with Existing Measures*

***Using 20-year GWP B. Recommended Actions to Further Reduce F-Gas Emissions**



If the RMP/R3 is working and emissions are being controlled why would the emission rate of residential units rise to 20% in 2030?

The Stratospheric Protection Division of EPA has cleared a Refrigerant Management Rule for publication in the Federal Register. We feel strongly that CARB's action will not meet the new Criteria that EPA will establish on leak rates.

The SLCPRS needs to consider and make clear that all F-Gas must be recovered and reclaimed. Only then will CARB lead in changes that can affect public health and welfare.

New Era strongly recommends that CARB recognize the large volume of refrigerant sales activity through the Internet. This becomes increasingly more problematic do to the lack of clear ownership guidance by EPA.

CARB while concerned about controlling refrigerants should seize this opportunity to debunk the knock on DOT-39 cylinders, valves and other issues which are neither part of the problem and in-fact would simply make all sectors spend more money with out a clear benefit.

There are more automobiles in the United States and certainly more in California. The 609 Regulation requires attention to leaks before an automotive repair shop installs refrigerant in a system there is no such requirement for residential air condition as a best practice.

New Era feels that there are no gimmicks that have hidden agendas with them to solve this complicated issue. Other industries have paid for environmental compliance in a very easy way. An environmental fee similar to the way tires are handled and disposed of, oil and anti-freeze. Some reasonable fee on all service tickets, regardless of the sector, can fund a great deal of the administrative work CARB provides for the public good.

All sectors should be considered before advancing a program that meets the needs of large companies. Keep in mind that not one Chemo or Equipment Manufacture is aggressively engaged in refrigerant reclamation.

- We recommend that leak rates should be zero emissions
- Recordkeeping should be required and verified across all sectors
- Sectors other than Automotive and GreenChill should be given equal consideration

In conclusion New Era suggest that the Air Resources Board take a conservative approach as opposed to an over zealous approach based on flawed data or worse yet flawed information supplied by self serving producers with no thought of the residential installed base. Goals are good but only if they can be realized. CARB should lead while protecting the public trust by giving clear and unambiguous signals into this most volatile industry.

We hope that these recommendations can be incorporated into the Short-Lived Climate Pollutant Reduction Strategy. If there is anything that we can do to further support this valuable effort, please contact us.

With Regards,

Peter Williams