

**Comment 1 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Tom

Last Name: Carter

Email Address: thomas.p.carter@jci.com

Affiliation: Johnson Controls

Subject: Questions related to Table 3, Appendix A

Comment:

Can you please clarify two items relative to Table 3 in Appendix A:

- 1) When listing the evaporator temperature limits for chillers, is this the temperature of the fluid being cooled or is it the bubble point temperature of the refrigerant being evaporated in the evaporator?
- 2) If a chiller is used as the upper stage heat rejection device of a refrigeration system in a cold storage warehouse, would the chiller's GWP limit be set by the chiller requirements or the lower cold storage warehouse requirements?

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-10-28 07:54:55

No Duplicates.

**Comment 2 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

This comment was posted then deleted because it was unrelated to the Board item or it was a duplicate.

**Comment 3 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Kristen

Last Name: Taddonio

Email Address: ktaddonio@igsd.org

Affiliation: IGSD

Subject: Support for CARB's proposed refrigeration and AC HFC regulations

Comment:

Attached, please find comments from the Institute for Governance & Sustainable Development. Thank you for the opportunity to comment.

Attachment: 'www.arb.ca.gov/lists/com-attach/3-hfc2020-AGkFZFMhBTIHXgVm.pdf'

Original File Name: IGSD\_comments\_CARB\_HFC\_Final.pdf

Date and Time Comment Was Submitted: 2020-11-09 13:21:12

No Duplicates.

**Comment 4 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Tom

Last Name: Nau

Email Address: tomn@rescoca.com

Affiliation: Manufacturers Rep

Subject: New CARB refrigerant rulings

Comment:

From what I'm seeing so far is that many of the new COVID vaccines may require storage temperatures where the natural refrigerants will not do the job.  
What is your plan to handle those applications?

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-11-12 09:48:46

No Duplicates.

**Comment 5 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Robert

Last Name: Marshall

Email Address: Rmarshall@smcfire.org

Affiliation: California Fire Prevention Officers Asso

Subject: HFC2020 Comment

Comment:

To Whom it May Concern

This letter is in regards to the proposed rule phasing out R-410A set for 1/1/23.

The California Fire Prevention Officers, North and South Sections are opposed to the implementation date, and would urge the date be pushed out two years.

As CARB is aware, there are concerns of the fire service regarding the safety of the replacement agents known as A2L. Testing is currently scheduled to assess the safety and flammability of the replacements. The testing is necessary so that fire and building codes can be adjusted to accommodate the refrigerants which are not allowed under current regulation. The Fire service generally likes the idea of the A2L refrigerants as they are generally less flammable than the other options such as propane, but they are not without risk. Any use of the new agents needs to be allowed by code however, and California going their own way would not address the need for testing that would need to occur anyway.

Time is needed to put safety elements into those codes so that the operation can be done safely without creating undue risk to the occupants of these structures, or the responders fighting fires in these structures. There is a possibility that the use of these refrigerants may cause an increase in fire risk under certain circumstances. The testing hopes to settle this question.

Because of the timeframes involved in the testing, as well as the time it takes to move through the code consensus process, a 2023 date would be too soon for manufacturers, installers, and code professionals to be able to comply with the new CARB regulation.

It would be preferable for the International Code Council process to work through its conclusion before mandating the phase out of the R410A. Once the International Codes are set, California can move quickly to adopt the new standards into the Title 24 regulations, ensuring standardization nationally on the issue. This

would reduce costs for the homeowners and businesses in the state. Premature enforcement could prove costly in the short term, and lead to buildings that are significantly less safe.

It is for these reasons that the California Fire Prevention Officers Association opposes the 1/1/23 date, and would prefer the date be set for 1/1/2025 instead.

Thank you for your time.

Sincerely,

Jason Nailon, President- Southern California Fire Prevention Officers Association  
Mike Payton, President- North California Fire Prevention Officers Association  
Robert Marshall- Rep. to the A2L Workgroup Northern California Fire Prevention Officers Association  
Randy Metz, Rep. to the A2L Workgroup, Southern California Fire Prevention Officers Association

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-11-13 11:48:55

No Duplicates.

**Comment 6 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Alex

Last Name: Hillbrand

Email Address: [ahillbrand@nrdc.org](mailto:ahillbrand@nrdc.org)

Affiliation: Natural Resources Defense Council

Subject: NRDC Comments on CARB 2020 HFC Regulation  
Comment:

Please see attachment.

Attachment: '[www.arb.ca.gov/lists/com-attach/6-hfc2020-VDpUIFI3BDQHxgdk.pdf](http://www.arb.ca.gov/lists/com-attach/6-hfc2020-VDpUIFI3BDQHxgdk.pdf)'

Original File Name: NRDC Comments - CARB HFC Rulemaking Nov 2020.pdf

Date and Time Comment Was Submitted: 2020-11-20 09:14:48

No Duplicates.

**Comment 7 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Mikhael

Last Name: Skvarla

Email Address: Non-web submitted comment

Affiliation: Gualco Group

Subject: Comment on HFC Regulation

Comment:

Please see attached. Redacted version of Comment #2.

Attachment: 'www.arb.ca.gov/lists/com-attach/7-hfc2020-VzBVJIY2WGdQNVM8.pdf'

Original File Name: gualco.pdf

Date and Time Comment Was Submitted: 2020-11-20 10:09:59

No Duplicates.



**Comment 8 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Erin

Last Name: Rowe

Email Address: babeonblades@gmail.com

Affiliation:

Subject: refrigerants

Comment:

proposed new policies on refrigerants are woefully inadequate

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-11-22 17:36:48

No Duplicates.

**Comment 9 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Karl

Last Name: Koessel

Email Address: karl.koessel@gmail.com

Affiliation:

Subject: HFC2020

Comment:

The proposed limits on high global warming potential HFC refrigerants will not get us anywhere close to California's net-zero by 2045 goal.

Far preferable is the Alternative 1 from the staff report which commits us to using natural refrigerants that have very low global warming potential.

Thank you for your attention to my opinion.

Sincerely,

Karl Koessel

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-11-22 18:08:41

No Duplicates.

**Comment 10 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Karl

Last Name: Koessel

Email Address: karl.koessel@gmail.com

Affiliation:

Subject: HFC2020

Comment:

The proposed limits on high global warming potential HFC refrigerants will not get us anywhere close to California's net-zero by 2045 goal.

Far preferable is the Alternative 1 from the staff report which commits us to using natural refrigerants that have very low global warming potential.

Thank you for your attention to my opinion.

Sincerely,

Karl Koessel

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-11-22 18:08:41

No Duplicates.

**Comment 11 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Chris  
Last Name: Forth  
Email Address: [chris.m.forth@jci.com](mailto:chris.m.forth@jci.com)  
Affiliation: Johnson Controls

Subject: JCI HFC Rule Comments: Title 17, California Code of Regulations, section 95371 et seq.

Comment:

Please see JCI's comments regarding Title 17, California Code of Regulations, section 95371 et seq.(HFC Rulemaking).

Please confirm the attachment "JCI HFC Comments...".doc was received.

Regards,

Chris M Forth  
Executive Director Regulatory, Codes and Environmental Affairs  
Johnson Controls Ducted Systems  
5005 York Drive N  
Norman, OK 73069  
(405) 826-5802  
[chris.m.forth@jci.com](mailto:chris.m.forth@jci.com)

Attachment: '[www.arb.ca.gov/lists/com-attach/11-hfc2020-VD4HYgdvUI5QPgZg.docx](http://www.arb.ca.gov/lists/com-attach/11-hfc2020-VD4HYgdvUI5QPgZg.docx)'

Original File Name: JCI HFC Comment Letter v10 clean final.docx

Date and Time Comment Was Submitted: 2020-11-23 07:41:31

No Duplicates.

**Comment 12 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Jessica

Last Name: Olson

Email Address: jessica.olson2@honeywell.com

Affiliation:

Subject: Honeywell Comments on Proposed HFC Regulation

Comment:

Please see attached comments from Honeywell International Inc. on the Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End-Uses.

Attachment: 'www.arb.ca.gov/lists/com-attach/12-hfc2020-AWlcNVE+WW9WKVUi.pdf'

Original File Name: Honeywell Comments Proposed Regulation.pdf

Date and Time Comment Was Submitted: 2020-11-24 14:43:32

No Duplicates.

**Comment 13 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Ilana

Last Name: Koegelenberg

Email Address: [ilana.koegelenberg@shecco.com](mailto:ilana.koegelenberg@shecco.com)

Affiliation: shecco America Inc.

Subject: shecco America Inc Comments on HFC2020

Comment:

Please see attached comments from shecco America Inc. on the Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End-Uses.

Attachment: '[www.arb.ca.gov/lists/com-attach/13-hfc2020-AWJUPQFtV2kKaQRq.pdf](http://www.arb.ca.gov/lists/com-attach/13-hfc2020-AWJUPQFtV2kKaQRq.pdf)'

Original File Name: Comments on HFC measures\_shecco\_2020.pdf

Date and Time Comment Was Submitted: 2020-11-27 07:36:14

No Duplicates.

**Comment 14 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Justin

Last Name: Koscher

Email Address: jkoscher@pima.org

Affiliation: PIMA

Subject: PIMA Comments on Proposed Amendments to HFC Regulation  
Comment:

Please see attached public comment letter submitted on behalf of the Polyisocyanurate Insulation Manufacturers Association.

Attachment: 'www.arb.ca.gov/lists/com-attach/14-hfc2020-USECbQFtUWNVDFU2.pdf'

Original File Name: PIMA Comment HFC Amendments FINAL v.11.30.2020.pdf

Date and Time Comment Was Submitted: 2020-11-30 07:26:50

No Duplicates.

**Comment 15 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Gypsy  
Last Name: Achong  
Email Address: gypsyachong@2050partners.com  
Affiliation:

Subject: Multi-stakeholder comments on CARB 2020 HFC Regulation  
Comment:

Thanks for the opportunity to submit comments on CARB's 2020 HFC Regulation.

Sincerely,  
Gypsy Achong, 2050 Partners on behalf of the signatories notes on the attachment

Attachment: 'www.arb.ca.gov/lists/com-attach/15-hfc2020-BnAGclcwWCYBZFQ7.pdf'

Original File Name: VRF-Coalition-Letter-with-logos-submitted.pdf

Date and Time Comment Was Submitted: 2020-12-03 10:24:14

No Duplicates.



**Comment 16 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Tetsuji

Last Name: Okada

Email Address: [jraia-global@jraia.or.jp](mailto:jraia-global@jraia.or.jp)

Affiliation: JRAIA (The Japan Refrigeration and Air C

Subject: JRAIA Letter to CARB

Comment:

JRAIA's comments to CARB are attached.

Attachment: '[www.arb.ca.gov/lists/com-attach/16-hfc2020-UGJda1JiB2ZQZgEz.pdf](http://www.arb.ca.gov/lists/com-attach/16-hfc2020-UGJda1JiB2ZQZgEz.pdf)'

Original File Name: 201202\_JRAIA letter to CARB.pdf

Date and Time Comment Was Submitted: 2020-12-03 15:28:12

No Duplicates.

**Comment 17 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Daniel

Last Name: Chandler

Email Address: dwchandler@gmail.com

Affiliation: 350 Humboldt

Subject: Please choose Alternative 1 for non-residential refrigerants

Comment:

We are grateful to the staff report for presenting an alternative to the proposed regulations. In the attachment we present reasons why Alternative 1 is superior to the Preferred Alternative, although it should be modified for flexibility and incentives. Thank you for this chance to comment on very important rules.

Attachment: 'www.arb.ca.gov/lists/com-attach/17-hfc2020-WjkHblQ4V2IRMgFv.pdf'

Original File Name: COMMENT TO CARB FAVORING ALTERNATIVE 1.pdf

Date and Time Comment Was Submitted: 2020-12-03 16:33:38

No Duplicates.

**Comment 18 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Mike

Last Name: Shrout

Email Address: mike.shrout@csfamail.com

Affiliation:

Subject: Title 17, California Code of Regulations, section 95371 et seq. (CARB HFC Rule Comments)

Comment:

Please see attached letter.

Thank you

Attachment: 'www.arb.ca.gov/lists/com-attach/18-hfc2020-UjFTNANwADFVDFQ8.pdf'

Original File Name: CARB HFC Rule Comments.docx.pdf

Date and Time Comment Was Submitted: 2020-12-04 10:45:33

No Duplicates.

**Comment 19 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Stephen

Last Name: Wieroniey

Email Address: stephen\_wieroniey@americanchemistry.com

Affiliation: CPI

Subject: CPI Comments on CARB Proposed HFC Regulation

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/19-hfc2020-Wi0BblE1ByYebVU7.pdf'

Original File Name: wieroniey.pdf

Date and Time Comment Was Submitted: 2020-12-04 12:20:08

No Duplicates.

**Comment 20 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Morgan

Last Name: Smith

Email Address: morgan.smith@nasrc.org

Affiliation: NASRC

Subject: NASRC Comments on Proposed HFC Regulations

Comment:

NASRC appreciates the opportunity to submit comments on the Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End-Uses. Please see our attached comments.

Attachment: 'www.arb.ca.gov/lists/com-attach/20-hfc2020-BWtSNVclByYAZQZZ.pdf'

Original File Name: NASRC Comments\_CARB HFC Rulemaking\_120520.pdf

Date and Time Comment Was Submitted: 2020-12-05 06:36:02

No Duplicates.

**Comment 21 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Fhyre

Last Name: Phoenix

Email Address: fhyrephoenix@gmail.com

Affiliation:

Subject: Refrigeration

Comment:

We are out of time. No more kicking the can down the road.  
Alternate One is the only responsible choice. You are in a position  
of responsibility, so take responsibility for solving this  
problem.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-05 22:36:07

No Duplicates.

**Comment 22 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: john

Last Name: pasqua

Email Address: killself5150@yahoo.com

Affiliation:

Subject: refrigerants

Comment:

end the pollution from bad refrigerants. fight the chemical leaks.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-06 04:14:15

No Duplicates.

**Comment 23 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Lee

Last Name: Dedini

Email Address: dedinilee@gmail.com

Affiliation: 350.org

Subject: We need Alternative 1 approved. It makes sense.

Comment:

On balance, and given the current warnings of the IPCC that at least 50% of emissions need to be curtailed by 2030 to have a chance of limiting global temperature rise to 1.5 degree C, the higher costs of quick action seem necessary. Given the vastly greater number of retail food markets in Europe and Japan that have adopted natural refrigerants, the claim of infeasibility by owners must be exaggerated. And both cost and feasibility are going to have to be dealt with in the near future in any case if we are to meet our goal of net-zero by 2045.  
It makes sense scientifically and

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-06 12:22:50

No Duplicates.



**Comment 24 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Rebecca

Last Name: Stauffer

Email Address: ras7001@gmail.com

Affiliation:

Subject: Action on Refrigerants

Comment:

Hello,

I am submitting comments on refrigerants and to that end, I strongly support Alternative 1, nothing less. I further urge you to improve Alternative 1 with incentives or tax breaks for those who live in disadvantaged areas.

There is no time to dawdle in this time of massive environmental degradation. Your decision is already late and should be taken in the strongest measure to protect all of us in coming years.

Thank you for considering this input,  
Rebecca Stauffer

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-06 12:27:36

No Duplicates.

**Comment 25 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Emily

Last Name: Siegel

Email Address: hannahsenesch@yahoo.com

Affiliation:

Subject: Non residential refrigerants

Comment:

I strongly prefer "Alternative 1" that will require new supermarkets and other large refrigerators to convert to natural refrigerants with a GWP of 10 or less. I also urge you to improve Alternative 1 by adding incentives or tax breaks for stores in disadvantaged areas.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-06 19:06:10

No Duplicates.

## **Comment 26 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Martha

Last Name: Walden

Email Address: marthawalden@suddenlink.net

Affiliation: 11th Hour

Subject: hydrofluorocarbon substitutes

Comment:

It comes as no surprise that California is forging ahead to regulate F-gases after the EPA's SNAP standards were foiled by federal court, and the Trump administration has squelched progress on this vital issue. However, the new CARB proposal for reducing the GHG emissions from non-residential refrigeration systems must go further in order to accomplish a significant reduction.

According to its own report, CARB's Preferred Alternative will reduce HFC emissions from refrigeration and AC by forty to fifty percent by 2045. This leaves quite a gap to be accomplished in the next five years, and it must be accomplished to achieve California's goal of carbon neutrality by 2045.

The cost-benefit ratio used by CARB drastically understates the cost of continued emissions from HFCs. Using 100 year GWP values instead of 20 year GWP values disguises and diminishes the nature of HFC emissions, and the impact they will have during the next thirty years--which are absolutely crucial. Furthermore, CARB's staff report notes that the social costs of GHG emissions were based on CO2. I cannot understand the rationale for this, considering how much more potent HFCs are at trapping heat. Indeed, it would be hard to overstate the difference--yes, the effect of HFCs occur over a much shorter term than CO2, but again, the short term is crucial.

Page 130 of the Staff Report and page 101 of the Standardized Regulatory Impact Assessment describe Alternative 1, which would far outstrip the impact of CARB's Preferred Alternative. Its standard is a GWP of 10 or less, and that can only be accomplished by converting to natural refrigerants such as propane, carbon dioxide or ammonia. Considering that it must be done at some point if California is to achieve carbon neutrality by 2045, delaying is counter-productive.

The natural refrigerants do require bigger and more expensive upgrades of equipment. A combination of technical help and subsidies could facilitate the conversion. Taxing the emissions of large systems could incentivize the large operations.

If there must be a two-tiered approach, why not require big operations to switch to natural refrigerants by 2030 but allow smaller operations more time? Smaller operations tend to run systems that use less than 50 lbs anyway. These smaller systems

should convert as soon as possible, but making a priority of the larger systems makes sense.

HFOs and other blends have a GWP of 1400. They are an incremental improvement that simply do not make the grade. Encouraging operators to use them instead of truly low-GWP substances furnishes no incentive for the industry to research, refine, and move aggressively towards natural refrigerants. Four years after the Kigali Amendment, Trader Joe, Wal-Mart, and Costco--big corporations with lots of money--all continue to emit high amounts of HFCs. Apparently, the capital costs of replacing their refrigeration equipment--an estimated 1% of total costs--is enough to discourage these large corporations even though the financial advantages of natural refrigerants more than repay the investment.

Many scientific circles consider HFCs to be the #1 threat as our world heats up and people increasingly need cooling substances for air and food. It would be difficult to overstate the importance of moving aggressively towards low GWP solutions.

Thank you.  
Martha Walden

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-06 20:11:33

No Duplicates.

**Comment 27 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Nicholas

Last Name: Georges

Email Address: ngeorges@thehcpa.org

Affiliation: Household & Commercial Products Associat

Subject: hfc2020

Comment:

The Household & Commercial Products Association (HCPA) appreciates the opportunity to provide the attached comments on the proposed amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End-Uses

Attachment: 'www.arb.ca.gov/lists/com-attach/28-hfc2020-Vj5XMgFwVWcKU1U2.pdf'

Original File Name: HCPA Comments on Proposed Amendments to CARB HFC Rule.pdf

Date and Time Comment Was Submitted: 2020-12-07 07:58:03

No Duplicates.

**Comment 28 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Sue Y.

Last Name: Lee

Email Address: sue.lee@humboldt.edu

Affiliation: Humboldt State University

Subject: Comments on hfc2020

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/29-hfc2020-Uj5dPgRgUSwHcVUx.pdf'

Original File Name: lee.pdf

Date and Time Comment Was Submitted: 2020-12-07 08:20:22

No Duplicates.

**Comment 29 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: David

Last Name: Burtis

Email Address: dbsrte2euphoria@yahoo.com

Affiliation:

Subject: Proposed regulation of HFC's

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/30-hfc2020-UTNSIVY1UHdVOgNw.pdf'

Original File Name: burtis.pdf

Date and Time Comment Was Submitted: 2020-12-07 08:22:42

No Duplicates.

**Comment 30 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Mary

Last Name: Sanger

Email Address: marysanger.001@gmail.com

Affiliation:

Subject: Hearing on Prohibitions on the use of certain refrigerants 12/10/20

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/31-hfc2020-VyRdOIU6V2MHZAFz.pdf'

Original File Name: sanger.pdf

Date and Time Comment Was Submitted: 2020-12-07 08:25:03

No Duplicates.



**Comment 31 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Patrick

Last Name: Carr

Email Address: nedlud432@gmail.com

Affiliation:

Subject: Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary

Comment:

Refrigerants in commercial stationary applications (chiefly grocery stores) pose a major potential global warming risk. I am happy that the CARB is proposing ways to reduce that risk.

I would prefer that CARB adopt Alternative 1, but with modifications that would increase the number of stores able to retrofit their refrigeration systems (through incentives, technical assistance, and training) and would move the industry toward use of natural refrigerants. These refrigerants will result in far less risk to our climate; we will undoubtedly move toward them at some point, and the sooner the better both for our climate and for the business models of grocery stores, which often have an annual profit margin of one percent or less.

Particularly important as a modification to Alternative i would be assistance in the form of financial incentive to grocers in areas of "food desert" conditions, typically low-income neighborhoods. Obviously these stores provide a much needed resource for their local areas and often run at a somewhat lower margin than stores in areas more economically blessed. I recognize that this would likely require legislative action to enact, and that should be a recommendation of CARB.

Thank you for the opportunity to provide these comments.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 08:54:19

No Duplicates.

**Comment 32 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Colleen

Last Name: Kandus

Email Address: kandus3@verizon.net

Affiliation:

Subject: Air quality

Comment:

Please approve Alternative 1 of your options to limit commercial refrigerants.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 10:38:40

No Duplicates.

**Comment 33 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Geraldina

Last Name: Grunbaum

Email Address: ggrunbaum@baaqmd.gov

Affiliation: Bay Area Air Quality Management District

Subject: BAAQMD support of proposed HFC amendments

Comment:

Please see attached letter of support for the proposed HFC amendments

Attachment: 'www.arb.ca.gov/lists/com-attach/34-hfc2020-VTZRNgFyADEAWQBo.pdf'

Original File Name: CARB HFC Letter of Support 2020-12-07.pdf

Date and Time Comment Was Submitted: 2020-12-07 13:37:49

No Duplicates.

**Comment 34 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Ted

Last Name: Atwood

Email Address: tatwood@trakref.com

Affiliation: Trakref

Subject: Trakref's Comment on the Proposed Amendments

Comment:

Trakref comments on the Proposed Amendments to the HFC Regulation

Attachment: 'www.arb.ca.gov/lists/com-attach/35-hfc2020-VCACdgFhVW1XI1M2.pdf'

Original File Name: Trakref Public Comment on the Proposed Amendments to the Prohibitions on the Use of Certain HFCs in Stationary Refrigeration, Chillers, Aerosols-Propellants, and Foam End-Uses Regulation.pdf

Date and Time Comment Was Submitted: 2020-12-07 13:33:36

No Duplicates.

**Comment 35 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Mike

Last Name: Armstrong

Email Address: mike.armstrong@agas.com

Affiliation:

Subject: Comments from EPA-Certified Reclaimers

Comment:

On behalf of A-Gas Americas, Hudson Technologies and National Refrigerants, Inc., please see the attached comments in response to California Air Resources Board proposed regulation on Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End Uses.

Attachment: 'www.arb.ca.gov/lists/com-attach/36-hfc2020-AHJRMlAyBToBZgNq.pdf'

Original File Name: Reclaimer Comments to CARB 12\_7\_2020.pdf

Date and Time Comment Was Submitted: 2020-12-07 13:55:08

No Duplicates.

**Comment 36 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Nadia

Last Name: Lynn

Email Address: naturalist.nadia@gmail.com

Affiliation:

Subject: Approve alternative 1!

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/37-hfc2020-AW1UK1M8Az5SelAg.pdf'

Original File Name: lynn.pdf

Date and Time Comment Was Submitted: 2020-12-07 14:38:29

No Duplicates.

**Comment 37 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Gypsy

Last Name: Achong

Email Address: gypsyachong@2050partners.com

Affiliation:

Subject: Multi-stakeholder comments on CARB 2020 HFC Regulation

Comment:

Thanks for the opportunity to submit comments on CARB's 2020 HFC Regulation. Please will you update the attachment submitted with my original comment on 12.3.2020 with this version.

Sincerely,

Gypsy Achong, 2050 Partners on behalf of the signatories noted on the attachment

Attachment: 'www.arb.ca.gov/lists/com-attach/38-hfc2020-BXMHcwZhAnwFYAVq.pdf'

Original File Name: VRF-Coalition-Letter-with-additional-logos-submitted.pdf

Date and Time Comment Was Submitted: 2020-12-07 15:22:42

No Duplicates.

**Comment 38 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: David

Last Name: Winningham

Email Address: dave.winningham@alliedair.com

Affiliation: Lennox International

Subject: Lennox International Comments regarding CARB HFC Regulation

Comment:

Lennox International Comments regarding CARB HFC Regulation

Attachment: 'www.arb.ca.gov/lists/com-attach/39-hfc2020-VjoFZgFuVmsHbgN7.pdf'

Original File Name: Lennox Comments - CARB Proposed Amendment 12072020.pdf

Date and Time Comment Was Submitted: 2020-12-07 15:34:16

No Duplicates.



**Comment 39 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Jenifer

Last Name: Pace

Email Address: 1jeniferpace@gmail.com

Affiliation: 350.org

Subject: supporting Alternative 1 - CARB

Comment:

Refrigerants today are often thousands of times more polluting than carbon dioxide. The most common refrigerant, R-22 has a 100 year Global Warming Potential (GWP) of 1,810 almost 2000 times the potency of carbon dioxide, so just 1 pound of R-22 is nearly as potent as a ton of carbon dioxide.

The most common replacement for R-22 in supermarket systems R-404A, is more than twice as potent a greenhouse gas than R-22. Just a single pound of R-404A is as potent as roughly 2 tons of CO2.

New low GWP technologies are available and solutions are advancing rapidly and are available today.

California's goal of achieving carbon neutrality by 2045 compels aggressive measures now. We do not have time to choose lesser measures. The clock is ticking!

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 15:35:48

No Duplicates.

**Comment 40 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Allison

Last Name: Skidd

Email Address: allison.skidd@rheem.com

Affiliation: Rheem Manufacturing

Subject: Rheem Comments on Proposed HFC Regulations

Comment:

Please see attachment for comments from Rheem Manufacturing Company relative to the proposed regulation for hydrofluorocarbons. Thank you in advance for your consideration.

Attachment: 'www.arb.ca.gov/lists/com-attach/41-hfc2020-WihdMwZiBTMAawlW.pdf'

Original File Name: Rheem comments\_CARB HFC reg\_12072020\_final.pdf

Date and Time Comment Was Submitted: 2020-12-07 15:48:48

No Duplicates.

**Comment 41 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Robert  
Last Name: Jackson  
Email Address: [rjackson@namanow.org](mailto:rjackson@namanow.org)  
Affiliation: NAMA

Subject: NAMA Comments to CARB  
Comment:

Please see attached.

Attachment: '[www.arb.ca.gov/lists/com-attach/42-hfc2020-AGoAZ1Y0UGgDdghn.pdf](http://www.arb.ca.gov/lists/com-attach/42-hfc2020-AGoAZ1Y0UGgDdghn.pdf)'

Original File Name: jackson.pdf

Date and Time Comment Was Submitted: 2020-12-07 15:58:05

No Duplicates.

**Comment 42 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Jason

Last Name: Thomas

Email Address: jason.m.thomas@carrier.com

Affiliation: Carrier Corporation

Subject: Carrier Comments - Proposed Amendments to the Prohibitions of HFCs  
Comment:

Chair Nichols and Mr. Corey,

Please see the attached comments from Carrier Corporation regarding the proposal on HFC refrigerants. Carrier appreciates your consideration on them. If you have any questions regarding this submission, please do not hesitate to contact me.

Regards,  
Jason Thomas  
Director Regulatory Affairs

Attachment: 'www.arb.ca.gov/lists/com-attach/43-hfc2020-UjEAZ10uVHUAbwRh.pdf'

Original File Name: Carrier CARB HFC 2020 comments\_final.pdf

Date and Time Comment Was Submitted: 2020-12-07 16:17:29

No Duplicates.

**Comment 43 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Nancy

Last Name: Ihara

Email Address: nancyihara@gmail.com

Affiliation:

Subject: Proposed amendments. Support for Alternative 1.

Comment:

The proposed amendments are being offered in recognition of the fact that climate change poses a threat to life on the planet as we know it. To mitigate this threat California has a goal of reaching zero emissions by 2045. The proposed amendments do not do enough to reach this goal. Alternative 1 of the staff report is the only alternative that addresses the need to reduce CO2e emissions sufficiently.

Alternative 1 is a more expensive option in the short term. The effects of climate change, however, are way more expensive and devastating in the long term.

Alternative 1 can be improved by adding incentives and tax breaks. I believe it is a false argument, by the way, to assert that supermarkets and the like will be permanently damaged financially as a result of having to close down temporarily to install refrigerant systems utilizing natural substances like ammonia and CO2. Customers pick their supermarkets bases on prices, product and convenience to their homes or workplaces. One or two days of closure in order to install new refrigeration units will not alter customers' choices.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 15:56:47

No Duplicates.

**Comment 44 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Akira

Last Name: Muto

Email Address: bxords@gmail.com

Affiliation: Consulate General of Japan

Subject: Letter from Akira Muto, Consul General of Japan

Comment:

See attached pdf.

Attachment: 'www.arb.ca.gov/lists/com-attach/45-hfc2020-VTkHZAB1VnEEZwZ0.pdf'

Original File Name: Letter to Chairman Mary Nichols (Consulate General of Japan).pdf

Date and Time Comment Was Submitted: 2020-12-07 16:45:10

No Duplicates.

**Comment 45 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Fariya

Last Name: Ali

Email Address: fariya.ali@pge.com

Affiliation: PG&E

Subject: PG&E Comments on HFC Regulation Amendments

Comment:

See attached

Attachment: 'www.arb.ca.gov/lists/com-attach/46-hfc2020-UiIAYVczWVUEYQVq.pdf'

Original File Name: PGE Comments on HFC 12-07-20.pdf

Date and Time Comment Was Submitted: 2020-12-07 16:51:54

No Duplicates.

**Comment 46 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: David

Last Name: Calabrese

Email Address: david.calabrese@daikin.us.com

Affiliation: Daikin U.S. Corporation

Subject: Comments to CARB Hydrofluorocarbon Rulemaking (Daikin U.S. Corporation)

Comment:

Good evening,

Please find attached the comments from Daikin U.S. Corporation on the California Air Resources Board's proposed regulation of hydrofluorocarbons used in stationary air conditioning equipment.

Attachment: 'www.arb.ca.gov/lists/com-attach/47-hfc2020-UzcBZII6V28BblM9.pdf'

Original File Name: Daikin Comments on 45 Day Language 12-7-20 wAppendix.pdf

Date and Time Comment Was Submitted: 2020-12-07 17:31:50

No Duplicates.



**Comment 47 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Jim

Last Name: Stewart

Email Address: drjimstewart@gmail.com

Affiliation:

Subject: Adopt Alternative 1 for refrigerants

Comment:

Alternative 1 for refrigerants is crucial to eliminate huge amounts of high GWP emissions in order to get 40% down by 2030 and zero net emissions by 2045.

Alternative 1 could be improved by adding incentives or tax breaks for stores in disadvantaged areas.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 18:01:11

No Duplicates.

**Comment 48 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Eric

Last Name: Brooks

Email Address: brookse32@hotmail.com

Affiliation:

Subject: Please Select Alternative 1 on HFC 2020

Comment:

Please reject all other alternatives, and both select, and \*enhance\* HFC policy 2020 \*Alternative 1\* which would essentially convert the entire system of supermarket and other large refrigerators to natural refrigerants with a Global Warming Potential of 10 or less. Please improve Alternative 1 to enhance economic justice and adoption, by adding incentives and tax breaks for stores in disadvantaged areas.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 18:19:25

No Duplicates.

**Comment 49 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Christina

Last Name: Starr

Email Address: cstarr@eia-global.org

Affiliation: Environmental Investigation Agency

Subject: Comments on Proposed HFC Regulation

Comment:

Please find attached EIA's comments on the proposed HFC regulation.

Attachment: 'www.arb.ca.gov/lists/com-attach/50-hfc2020-BWACbVc3UI5RNARr.pdf'

Original File Name: EIA Comments on California Air Resources Board Proposed Amendment the Prohibitions on Use of Certain Hydrofluorocarbons\_December 2020.pdf

Date and Time Comment Was Submitted: 2020-12-07 18:37:55

No Duplicates.

**Comment 50 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Esther

Last Name: Rosenberg

Email Address: esther.rosenberg@chemours.com

Affiliation:

Subject: hfc2020

Comment:

Comments for rulemaking hfc2020

Attachment: 'www.arb.ca.gov/lists/com-attach/52-hfc2020-VjVQPgRgAjwLYgh9.pdf'

Original File Name: Chemours Comments CARB Board Hearing Dec 10\_2020.pdf

Date and Time Comment Was Submitted: 2020-12-07 19:24:08

No Duplicates.

**Comment 51 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Helen

Last Name: Walter-Terrinoni

Email Address: hwalter-terrinoni@ahrinet.org

Affiliation: AHRI

Subject: AHRI Comments on HFC Regulation

Comment:

The Air Conditioning, Heating and Refrigeration Institute's comments related to CARB's proposed HFC transitions in commercial refrigeration and separately for air conditioning are attached here along with an evaluation of the available air conditioning refrigerant for recovery and reclaim nationally as well as some of the work done to prepare for the safe transition to low global warming potential refrigerants.

Part 1

Attachment: 'www.arb.ca.gov/lists/com-attach/53-hfc2020-VDcBaANvU21VNgBu.zip'

Original File Name: Comments and Reclaim Evaluation.zip

Date and Time Comment Was Submitted: 2020-12-07 19:19:35

No Duplicates.

**Comment 52 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Helen

Last Name: Walter-Terrinoni

Email Address: hwalter-terrinoni@ahrinet.org

Affiliation: AHRI

Subject: AHRI Comments Part 2

Comment:

The Air Conditioning, Heating and Refrigeration Institute's comments related to CARB's proposed HFC transitions in commercial refrigeration and separately for air conditioning are attached here along with an evaluation of the available air conditioning refrigerant for recovery and reclaim nationally as well as some of the work done to prepare for the safe transition to low global warming potential refrigerants.

Part 2

Attachment: 'www.arb.ca.gov/lists/com-attach/54-hfc2020-B3dVIQZiUXQKZQRr.zip'

Original File Name: Previous Comments Zipped Folder.zip

Date and Time Comment Was Submitted: 2020-12-07 19:48:41

No Duplicates.

**Comment 53 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Kim

Last Name: Floyd

Email Address: kimffloyd@fastmail.com

Affiliation:

Subject: Community Air Protection Program-San Bernardino, Muscoy

Comment:

"Alternative 1 for refrigerants is crucial to eliminate huge amounts of high GWP emissions in order to get 40% down by 2030 and zero net emissions by 2045.  
Alternative 1 could be improved by adding incentives or tax breaks for stores in disadvantaged areas."

Thank you for your consideration.

Kim Floyd  
44579 Sorrento Ct  
Palm Desert, CA

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 20:06:39

No Duplicates.

**Comment 54 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: John

Last Name: Bottorff

Email Address: j@cleaneearth4kids.org

Affiliation: CleanEarth4Kids.org

Subject: Support Alternative #1

Comment:

I ask CARB to go with Alternative 1.

I would suggest adding incentives or tax breaks for stores in disadvantaged areas.

Thank you,

John

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2020-12-07 21:46:24

No Duplicates.



**Comment 55 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: David  
Last Name: Gauvin  
Email Address: dgauvin@trane.com  
Affiliation: TRANE North America

Subject: TRANE Comments  
Comment:

Dear Sir or Madam,

Please see attached documents.

Thank you in advance for your consideration,

David Gauvin, P.Eng. LEED AP BD+C  
Strategic Manager - Ice Rinks  
TRANE North America

Attachment: 'www.arb.ca.gov/lists/com-attach/57-hfc2020-ViICdlc3VWgGZVQL.zip'

Original File Name: Trane CARB.zip

Date and Time Comment Was Submitted: 2020-12-07 22:25:42

No Duplicates.

**Comment 56 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: S.

Last Name: Tan

Email Address: unojodelacara@gmail.com

Affiliation:

Subject: Amendments to the Prohibitions on Use of Certain HFC in stationary refrigeration  
Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/58-hfc2020-USUCZQFuVCIVIwFl.pdf'

Original File Name: tan.pdf

Date and Time Comment Was Submitted: 2020-12-08 08:41:30

No Duplicates.

**Comment 57 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Ann

Last Name: Dorsey

Email Address: aedorsey@hotmail.com

Affiliation:

Subject: HFC2020 Comment

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/59-hfc2020-Wj4Cawd0VXUFZgR9.pdf'

Original File Name: dorsey.pdf

Date and Time Comment Was Submitted: 2020-12-08 08:44:00

No Duplicates.

**Comment 58 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Alex

Last Name: Ayers

Email Address: aayers@hardinet.org

Affiliation: HARDI

Subject: Comments from HARDI for HFC2020

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/60-hfc2020-WjtTLAFlWXgHcld5.pdf'

Original File Name: ayers.pdf

Date and Time Comment Was Submitted: 2020-12-08 08:43:43

No Duplicates.

**Comment 59 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Jan

Last Name: Dietrick

Email Address: jdietrick9@gmail.com

Affiliation:

Subject: Comment on HFC2020

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/61-hfc2020-VzNRPgBkUXZQJAFo.pdf'

Original File Name: dietrick.pdf

Date and Time Comment Was Submitted: 2020-12-08 08:48:34

No Duplicates.

**Comment 60 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Karen

Last Name: Kirschling

Email Address: kumasong@icloud.com

Affiliation:

Subject: Comment on HFC2020

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/62-hfc2020-WjEAb1EiAiIDZgJq.pdf'

Original File Name: kirschling.pdf

Date and Time Comment Was Submitted: 2020-12-08 08:49:59

No Duplicates.

**Comment 61 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Helen

Last Name: Walter-Terrinoni

Email Address: Non-web submitted comment

Affiliation: AHRI

Subject: AHRI Comments Part 3

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/63-HFC2020-mvrzxU2RhQW2dY8.zip'

Original File Name: Safe-Transition-AHRI-2.zip

Date and Time Comment Was Submitted: 2020-12-08 08:53:47

No Duplicates.

**Comment 62 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Helen

Last Name: Walter-Terrinoni

Email Address: Non-web submitted comment

Affiliation: AHRI

Subject: AHRI Comments Part 4

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/64-HFC2020-XENduWSKv8JGHjx0.zip'

Original File Name: Safe-Transition-AHRI-1.zip

Date and Time Comment Was Submitted: 2020-12-08 08:54:31

No Duplicates.



**Comment 63 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 45 Day.**

First Name: Bill

Last Name: Senator Dodd

Email Address: Non-web submitted comment

Affiliation: Senator, Third District

Subject: CARB Refrigerant Letter

Comment:

Please see attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/65-hfc2020-BWFWP1E0ADcDKwh4.pdf'

Original File Name: dodd.pdf

Date and Time Comment Was Submitted: 2020-12-08 08:59:44

No Duplicates.

**Comment 1 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020). (At Hearing)**

First Name: Richard  
Last Name: Weekley  
Email Address: Richard.Weekley@us.bosch.com  
Affiliation: FHP Manufacturing

Subject: Comments on Proposed HFC Regulation  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/66-hfc2020-WjxRPwNyV1sLbgZn.pdf](http://www.arb.ca.gov/lists/com-attach/66-hfc2020-WjxRPwNyV1sLbgZn.pdf)

Original File Name: FHP CARB comments Dec\_2020.pdf

Date and Time Comment Was Submitted: 2020-12-10 08:35:02

No Duplicates.

**Comment 2 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020). (At Hearing)**

First Name: Doug  
Last Name: Tucker  
Email Address: dtucker@hvac.mea.com  
Affiliation:

Subject: MEUS Comments on CARB Discussion Item 20-13-4, 12/10/2020  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/68-hfc2020-VyQFdwZiVnMEZwIW.pdf](http://www.arb.ca.gov/lists/com-attach/68-hfc2020-VyQFdwZiVnMEZwIW.pdf)

Original File Name: Steve Douglas - Item 20-13-7 Funding Plan for Clean Transportation Incentives.pdf

Date and Time Comment Was Submitted: 2020-12-10 09:23:47

No Duplicates.

**Comment 3 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020). (At Hearing)**

First Name: Kevin

Last Name: Fay

Email Address: fay@alcalde-fay.com

Affiliation: The Alliance

Subject: Response to Discussion Item 20-13-4

Comment:

Message attached.

Attachment: [www.arb.ca.gov/lists/com-attach/1-december2020opencomm-UjMFbwFsBT8EYwFv.pdf](http://www.arb.ca.gov/lists/com-attach/1-december2020opencomm-UjMFbwFsBT8EYwFv.pdf)

Original File Name: Alliance CARB 121020 Board Meeting Statement.pdf

Date and Time Comment Was Submitted: 2020-12-10 12:24:13

No Duplicates.

**Comment 1 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Tom

Last Name: Nau

Email Address: tomn@rescoca.com

Affiliation: RESCO

Subject: New CARB refrigerant rulings

Comment:

We are continually receiving questions on the forthcoming CARB regulations for refrigerant from our customers who are just finding out about the forthcoming CARB revised regulations.

A food processor or food distributor has a large facility with multiple coolers and freezers all being cooled using standard commercially available HFC condensing units (ranging from 5 HP to 40 HP) feeding evaporators in the coolers and freezers.

1. If the user adds individual coolers and freezers in the same facility will the new refrigeration systems using HFC like R448a need to be under 50# charge each?

2. Or if the user expands the individual coolers and freezers in the same facility will the new refrigeration systems using HFC like R448a need to be under 50# charge each?

Respectfully submitted for your consideration,

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-05-25 15:13:31

No Duplicates.

**Comment 2 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Sang

Last Name: Lee

Email Address: sang.lee@na.denso.com

Affiliation:

Subject: Denso comment on CARB hfc2020

Comment:

Please refer to attached file for our comments concerning the subject matter

Attachment: [www.arb.ca.gov/lists/com-attach/72-hfc2020-BWFdPgFuBSUKYwVa.pdf](http://www.arb.ca.gov/lists/com-attach/72-hfc2020-BWFdPgFuBSUKYwVa.pdf)

Original File Name: Denso Comments CARB May 26 2021 Resubmit.pdf

Date and Time Comment Was Submitted: 2021-05-27 09:22:57

No Duplicates.

### **Comment 3 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Armando

Last Name: Mota

Email Address: armando.mota@goairsolutions.com

Affiliation:

Subject: extend timeline

Comment:

To Whom it may concern:

I am writing today with regards to the recent news I was provided concerning the planned update and requirement that as of January 1st 2023 all AC equipment must comply with the new GWP limits proposed to reduce greenhouse gas emissions within California by the year 2030.

Let me start off by stating that as a life-long resident of California I am wholeheartedly for the reduction of greenhouse gas emissions and am in agreement with CARBs goal to improve our health and environment.

I operate a small air conditioner rental business for commercial clients. My company supplies emergency climate control services to customers throughout California. The equipment we provide is often used to provide real comfort as well as critical solutions to thousands in need of cooling in the event that their existing air conditioning equipment fails or needs maintenance. We supply equipment to schools as well as hospitals and nursing homes where children and the elderly might otherwise be left without any conditioning to their environment and become sick. We supply equipment to data centers that can fail from heat overload costing clients and customers untold sums of time and money. We supply equipment to office spaces and retail locations as well as restaurants that might otherwise be forced to shut down as the lack of air conditioning can present a health hazard to customers and staff.

My concern is that the timeline provided for this exchange will place an enormous stress as well as cost on the manufacturers who supply our air conditioning equipment which will in turn fall upon us as well as our customers. The price of materials to manufacture and purchase this equipment has already increased vastly just within the last year while many of us are still recovering from the effects of COVID upon our state.

I am not asking that you reconsider the reduction of greenhouse gas emissions, only that your board kindly consider providing more time for manufacturers to update and supply this equipment. Generally, the timeline for a redesign is easily 5+ years. Rushing the process could result in potential recalls and equipment that fails to meet previous standards which in turn will place more burden and

cost on the consumers who are the residents of California, to whom we are aiming to help. If there is a delay or cease of production the impact on our business and the people of this state will be tremendous.

I do sincerely thank you for your time and consideration.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-05-27 09:26:17

No Duplicates.



**Comment 4 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Tom

Last Name: Nau

Email Address: Non-web submitted comment

Affiliation:

Subject: RESCO Comments on HFC2020

Comment:

Comment received via email to cotb@arb.ca.gov.

Attachment: [www.arb.ca.gov/lists/com-attach/74-hfc2020-BXECa1E9U19ROQFg.pdf](http://www.arb.ca.gov/lists/com-attach/74-hfc2020-BXECa1E9U19ROQFg.pdf)

Original File Name: Tom Nau Comments on hfc2020.pdf

Date and Time Comment Was Submitted: 2021-05-27 16:03:35

No Duplicates.

**Comment 5 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Vince

Last Name: Romanin

Email Address: vince@treau.cool

Affiliation:

Subject: Low-GWP Natural Refrigerant AC/Heat Pump Unit

Comment:

Treau is a seed-stage hardware startup in San Francisco, CA that is building air conditioning/heat pump units that are easier to install and more pleasant to use. Our technology allows us to make a 9K BTU heat pump that uses 350g of R290 in a safe manner by containing the refrigerant to a hermetically sealed outdoor unit. Regulation that pushes the industry towards the safe and timely uptake of units using very low-GWP natural refrigerants would help us introduce climate-friendly heat pumps into more homes, particularly in the United States. We appreciate this opportunity to submit a public comment; please feel free to reach out with any questions.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-05-27 16:58:31

No Duplicates.

**Comment 6 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Tetsuji  
Last Name: Okada  
Email Address: jraia-global@jraia.or.jp  
Affiliation: JRAIA

Subject: JRAIA comments to CARB  
Comment:

Attached, please find JRAIA's comments.

regards,

JRAIA  
The Japan Refrigeration and Air Conditioning Industry Association

Attachment: [www.arb.ca.gov/lists/com-attach/76-hfc2020-WmgANwY3UjQEMAM7.pdf](http://www.arb.ca.gov/lists/com-attach/76-hfc2020-WmgANwY3UjQEMAM7.pdf)

Original File Name: 210528 JRAIA letter to CARB.pdf

Date and Time Comment Was Submitted: 2021-05-27 21:59:58

No Duplicates.

**Comment 7 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Esther

Last Name: Rosenberg

Email Address: esther.rosenberg@chemours.com

Affiliation:

Subject: Response to Modified Text

Comment:

Please find attached comments in response to the modified text of the proposed amendments to the prohibition on use of certain hydrofluorocarbons in stationary refrigeration, chillers, aerosols-propellants, and foam end-uses regulation.

Attachment: [www.arb.ca.gov/lists/com-attach/77-hfc2020-WjkHbII+BDpSMVQ6.pdf](http://www.arb.ca.gov/lists/com-attach/77-hfc2020-WjkHbII+BDpSMVQ6.pdf)

Original File Name: Comments\_Modified Proposal\_CARB\_28MAY21.pdf

Date and Time Comment Was Submitted: 2021-05-28 07:27:08

No Duplicates.

**Comment 8 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Jason

Last Name: Thomas

Email Address: jason.m.thomas@carrier.com

Affiliation:

Subject: Carrier Comments

Comment:

Please see attached for Carrier's input on the proposed 15-day language. Thank you for your consideration.

Attachment: [www.arb.ca.gov/lists/com-attach/78-hfc2020-AmFWMQZ1VncEawFk.pdf](http://www.arb.ca.gov/lists/com-attach/78-hfc2020-AmFWMQZ1VncEawFk.pdf)

Original File Name: Carrier 15-day language Comments\_final.pdf

Date and Time Comment Was Submitted: 2021-05-28 08:10:51

No Duplicates.

**Comment 9 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Nanette

Last Name: Lockwood

Email Address: nanette.lockwood@tranetechnologies.com

Affiliation: Trane Technologies

Subject: Comments to Modified Text for the HFC Prohibitions

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/79-hfc2020-AHRQJANjVmsKaQdY.pdf](http://www.arb.ca.gov/lists/com-attach/79-hfc2020-AHRQJANjVmsKaQdY.pdf)

Original File Name: Trane Technologies Comments to CARB - 15 day reclaim language.pdf

Date and Time Comment Was Submitted: 2021-05-28 09:02:11

No Duplicates.

**Comment 10 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Mike

Last Name: Armstrong

Email Address: mike.armstrong@agas.com

Affiliation:

Subject: Comments from EPA-Certified Reclaimers

Comment:

On behalf of A-Gas Americas, Hudson Technologies and National Refrigerants, Inc., please see attached comments in response to California Air Resources Board's Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End-Uses.

Attachment: [www.arb.ca.gov/lists/com-attach/80-hfc2020-BXdcP1c1WWZVMgBp.pdf](http://www.arb.ca.gov/lists/com-attach/80-hfc2020-BXdcP1c1WWZVMgBp.pdf)

Original File Name: Reclaimer Comments to CARB 5\_28\_2021.pdf

Date and Time Comment Was Submitted: 2021-05-28 11:17:23

No Duplicates.

**Comment 11 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Pierre

Last Name: Harfouche

Email Address: pierre.harfouche@aprilair.com

Affiliation: Research Products dba Aprilaire

Subject: Aprilaire Comments

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/81-hfc2020-VDVVI1EiAjhROwZn.pdf](http://www.arb.ca.gov/lists/com-attach/81-hfc2020-VDVVI1EiAjhROwZn.pdf)

Original File Name: Aprilaire Comments on HFC 2020.pdf

Date and Time Comment Was Submitted: 2021-05-28 11:21:23

No Duplicates.



**Comment 12 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Daniel

Last Name: Dettmers

Email Address: ddettmers@questclimate.com

Affiliation: Quest Dehumidifiers

Subject: Dettmers-Therma-stor comment on compliance date for dehumidifiers

Comment:

Please see the attached letter for our comment regarding the compliance date for dehumidification equipment listed in the "Modifications to the Proposed Regulation Order: Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Stationary Air-conditioning, and Other End Uses" document released on May 13th.

Attachment: [www.arb.ca.gov/lists/com-attach/82-hfc2020-AmZdPgdyBSIGbQVg.pdf](http://www.arb.ca.gov/lists/com-attach/82-hfc2020-AmZdPgdyBSIGbQVg.pdf)

Original File Name: Dettmers - ThermaStor comment on hfc202.pdf

Date and Time Comment Was Submitted: 2021-05-28 12:00:23

No Duplicates.

**Comment 13 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: David

Last Name: Calabrese

Email Address: david.calabrese@daikin.us.com

Affiliation: Daikin U.S. Corporation

Subject: Comments to CARB Hydrofluorocarbon Rulemaking: 15-Day Changes  
Comment:

Please find attached the comments from Daikin U.S. Corporation.

Attachment: [www.arb.ca.gov/lists/com-attach/83-hfc2020-Wz9SNVQ8BDwLZFM9.pdf](http://www.arb.ca.gov/lists/com-attach/83-hfc2020-Wz9SNVQ8BDwLZFM9.pdf)

Original File Name: Daikin Ltr\_CARB HFC 5\_28\_21 FINAL.pdf

Date and Time Comment Was Submitted: 2021-05-28 12:09:40

No Duplicates.

**Comment 14 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Chris

Last Name: Forth

Email Address: [chris.m.forth@jci.com](mailto:chris.m.forth@jci.com)

Affiliation: Johnson Controls

Subject: JCI 15 - Day HFC Comments

Comment:

Please see JCI's attached comments on the 15 - Day language for HFC's.

Attachment: [www.arb.ca.gov/lists/com-attach/84-hfc2020-VjxSN1A4UV0AbgBm.pdf](http://www.arb.ca.gov/lists/com-attach/84-hfc2020-VjxSN1A4UV0AbgBm.pdf)

Original File Name: JCI HFC Comments 15 Day Regulation v4.pdf

Date and Time Comment Was Submitted: 2021-05-28 13:53:14

No Duplicates.

**Comment 15 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Lauren

Last Name: Crane

Email Address: lauren.crane@us.tel.com

Affiliation:

Subject: Comments on amended HFC regulation

Comment:

Please see the attached file. If you have any questions about these comments, I would be delighted to provide any additional information that I can.

Best Regards,  
-Lauren Crane

Attachment: [www.arb.ca.gov/lists/com-attach/85-HFC2020-ugd79ERm8IF6KZbo.pdf](http://www.arb.ca.gov/lists/com-attach/85-HFC2020-ugd79ERm8IF6KZbo.pdf)

Original File Name: L.Crane Comments on CA HFC Regulation due May 28 2021 r1.pdf

Date and Time Comment Was Submitted: 2021-05-28 14:11:33

No Duplicates.

**Comment 16 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Allison

Last Name: Skidd

Email Address: allison.skidd@rheem.com

Affiliation: Rheem Manufacturing

Subject: Rheem Comments on Proposed HFC Regulation Amendments

Comment:

Please see attachment.

Attachment: [www.arb.ca.gov/lists/com-attach/86-hfc2020-VCZVO1UxAzVSOQVa.pdf](http://www.arb.ca.gov/lists/com-attach/86-hfc2020-VCZVO1UxAzVSOQVa.pdf)

Original File Name: Rheem comments\_CARB HFC 15 Day  
Amendments\_2021May28\_final.pdf

Date and Time Comment Was Submitted: 2021-05-28 14:36:43

No Duplicates.

**Comment 17 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: John

Last Name: Cummings

Email Address: john.cummings@lge.com

Affiliation: LG Electronics USA, Inc.

Subject: Room AC and PTAC/PTHP

Comment:

RAC and PTAC/PTHP are categorized as residential and commercial products respectively. Does this categorization impact the R4 program in any way?

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-05-28 15:01:21

No Duplicates.

**Comment 18 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: John

Last Name: Cummings

Email Address: john.cummings@lge.com

Affiliation: LG Electronics USA, Inc.

Subject: R4 distribution locations record keeping

Comment:

VRF OEM equipment manufactures will procure the reclaimed R410A refrigerant from an EPA certified company, and provide the records to CARB. Generally a 3rd party vendor will actually distribute the refrigerant to the field physical locations. Can you confirm there is no need to document where this refrigerant container was shipped to.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-05-28 15:14:46

No Duplicates.

**Comment 19 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: John

Last Name: Cummings

Email Address: john.cummings@lge.com

Affiliation: LG Electronics USA, Inc.

Subject: Availability of R410A refrigerant for reclaim

Comment:

Does CARB forecast any concerns that there might be a limited availability of R410A refrigerant that is suitable for reclaiming process?

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-05-28 15:35:29

No Duplicates.



**Comment 20 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-1.**

First Name: Helen

Last Name: Walter-Terrinoni

Email Address: Non-web submitted comment

Affiliation: AHRI

Subject: AHRI comments regarding CARB HFC 15day language

Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/90-hfc2020-BWRQPllhUmgAWQFi.pdf](http://www.arb.ca.gov/lists/com-attach/90-hfc2020-BWRQPllhUmgAWQFi.pdf)

Original File Name: AHRI comments regarding CARB HFC 15 day language 5 28 21.pdf

Date and Time Comment Was Submitted: 2021-05-28 20:05:41

No Duplicates.

**Comment 1 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Rupal  
Last Name: Choksi  
Email Address: rchoksi@madisoniaq.com  
Affiliation: Madison IAQ

Subject: CARB JFC 2nd 15-day Notice  
Comment:

Hello,

Please see attached comments submitted by Madison Indoor Air Quality.

If you have any questions, please let me know.

Thanks,  
Rupal Choksi  
rchoksi@madisoniaq.com

Attachment: [www.arb.ca.gov/lists/com-attach/91-hfc2020-WzZUOwFhAyEAWQRn.pdf](http://www.arb.ca.gov/lists/com-attach/91-hfc2020-WzZUOwFhAyEAWQRn.pdf)

Original File Name: MIAQ Comments - CARB HFC 2nd 15-Day Notice.pdf

Date and Time Comment Was Submitted: 2021-08-17 07:46:18

No Duplicates.

**Comment 2 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Pierre

Last Name: Harfouche

Email Address: pierre.harfouche@aprilair.com

Affiliation: Research Products Corp. dba Aprilaire

Subject: Aprilaire Comments on Second 15 Notice  
Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/92-hfc2020-UzJVIwBzVmwBawBh.pdf](http://www.arb.ca.gov/lists/com-attach/92-hfc2020-UzJVIwBzVmwBawBh.pdf)

Original File Name: Aprilaire 15-day-2 CARB Comments Official.pdf

Date and Time Comment Was Submitted: 2021-08-17 11:46:18

No Duplicates.

### **Comment 3 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Sunghyuk  
Last Name: Hong  
Email Address: tony.hong@lge.com  
Affiliation: LG Electronics Inc.

Subject: Clarification for Geographic location of Certified Reclaimed Refrigerant  
Comment:

Even though CARB's Notice said

"Certified reclaimed refrigerant can be refrigerant recovered from any geographic location as long as the reclaimed refrigerant meets the requirements of being reclaimed by a U.S. EPA certified refrigerant reclaimer,...",

the meaning of 'any geographic location' is not clarified. We believe CARB has shown a very flexible about this point and EPA rule(40 CRF pt.82, Subpt. F, App. A) does not mention any restriction about geographic location,

but we would like CARB to clarify the following points.

(1) a reclaimer outside the United States be certified by the EPA;  
and

(2) the sale of equipment with refrigerants reclaimed outside the United States.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-18 06:06:24

No Duplicates.

**Comment 4 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Sunghyuk  
Last Name: Hong  
Email Address: tony.hong@lge.com  
Affiliation: LG Electronics Inc.

Subject: Residential Dehumidifier effective date  
Comment:

After reviewing the 2nd Notice,  
I found some question about dehumidifier.  
Based on current EPA rule (40 CFR), there is no refrigerant which  
are GWP below 750 for residential dehumidifier.

If CARB has already recognized that some refrigerant A2L grade (for  
example R32) are under process of EPA approval and it will be  
completed before 2023, it is no problem.

But if there is no EPA process, then for the residential  
dehumidifier, the effective date of 2023 shall be subject to 2025  
or after EPA approval.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-08-18 06:10:50

No Duplicates.

**Comment 5 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Mike

Last Name: Armstrong

Email Address: mike.armstrong@agas.com

Affiliation:

Subject: Comments from EPA-Certified Reclaimers

Comment:

On behalf of A-Gas Americas, Hudson Technologies and National Refrigerants, Inc., please see attached comments in response to California Air Resources Board's Second Notice of Public Availability of Modified Text and Availability of Additional Documents for the Proposed Amendments on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End-Uses.

Attachment: [www.arb.ca.gov/lists/com-attach/95-hfc2020-WihSMQRmAD8GYVM6.pdf](http://www.arb.ca.gov/lists/com-attach/95-hfc2020-WihSMQRmAD8GYVM6.pdf)

Original File Name: Reclaimer Comments to CARB 08.18.2021.pdf

Date and Time Comment Was Submitted: 2021-08-18 12:31:41

No Duplicates.

**Comment 6 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Allison

Last Name: Skidd

Email Address: allison.skidd@rheem.com

Affiliation: Rheem Manufacturing Company

Subject: Rheem Comments on Proposed HFC Regulation Amendments (2nd Notice)  
Comment:

Please see attachment.

Attachment: [www.arb.ca.gov/lists/com-attach/96-hfc2020-AXNXOVA0UGYCaVIN.pdf](http://www.arb.ca.gov/lists/com-attach/96-hfc2020-AXNXOVA0UGYCaVIN.pdf)

Original File Name: Rheem comments\_CARB HFC 15 Day  
Amendments\_2021Aug18\_final.pdf

Date and Time Comment Was Submitted: 2021-08-18 13:05:51

No Duplicates.

**Comment 7 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Esther

Last Name: Rosenberg

Email Address: esther.rosenberg@chemours.com

Affiliation:

Subject: Second Notice of Modified Proposal\_HFC2020

Comment:

Comments on second notice of modified Proposal.

Attachment: [www.arb.ca.gov/lists/com-attach/97-hfc2020-B2RSPFczBDoFbAN2.pdf](http://www.arb.ca.gov/lists/com-attach/97-hfc2020-B2RSPFczBDoFbAN2.pdf)

Original File Name: Chemours\_Second Modified Proposal\_CARB\_2021.pdf

Date and Time Comment Was Submitted: 2021-08-18 13:50:22

No Duplicates.



**Comment 8 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Tom

Last Name: Nau

Email Address: tomn@rescoca.com

Affiliation: RESCO

Subject: New CARB refrigerant rulings

Comment:

Request for delay of new CARB ruling on refrigerants, see attachment

Attachment: [www.arb.ca.gov/lists/com-attach/98-hfc2020-VjVRNlMgBzZWDwZg.docx](http://www.arb.ca.gov/lists/com-attach/98-hfc2020-VjVRNlMgBzZWDwZg.docx)

Original File Name: carb final comments revised 8-17-21.docx

Date and Time Comment Was Submitted: 2021-08-18 14:52:46

No Duplicates.

**Comment 9 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Nanette

Last Name: Lockwood

Email Address: nanette.lockwood@tranetechnologies.com

Affiliation: Trane Technologies

Subject: Comments to 2nd 15 Day Modified Text for the HFC Prohibitions

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/99-hfc2020-BnJdKVawUWwEZwFe.pdf](http://www.arb.ca.gov/lists/com-attach/99-hfc2020-BnJdKVawUWwEZwFe.pdf)

Original File Name: Trane Technologies Comments to CARB - second 15 day language 08182021.pdf

Date and Time Comment Was Submitted: 2021-08-18 16:10:39

No Duplicates.

**Comment 10 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: David

Last Name: Couchot

Email Address: dave@fluorofusion.com

Affiliation: FluoroFusion Specialty Chemicals, Inc.

Subject: Comments on Certified Reclaimed Refrigerant  
Comment:

Please find attached comments in response to the modified text of the proposed amendments to the prohibition on use of certain hydrofluorocarbons in stationary refrigeration, chillers, aerosols-propellants, and foam end-uses regulation.

Attachment: [www.arb.ca.gov/lists/com-attach/101-hfc2020-VGZTZVBjUTNQCVBg.pdf](http://www.arb.ca.gov/lists/com-attach/101-hfc2020-VGZTZVBjUTNQCVBg.pdf)

Original File Name: 2021\_08\_08 CARB FFSC Comments FINAL.pdf

Date and Time Comment Was Submitted: 2021-08-18 17:04:53

No Duplicates.

**Comment 11 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Jason

Last Name: Thomas

Email Address: jason.m.thomas@carrier.com

Affiliation:

Subject: Carrier Comments

Comment:

Please find Carrier's comments to the 2nd 15 day language proposed.  
Thank you for the opportunity to provide input.

Attachment: [www.arb.ca.gov/lists/com-attach/102-hfc2020-VjUFYIUmBDUHXldl.pdf](http://www.arb.ca.gov/lists/com-attach/102-hfc2020-VjUFYIUmBDUHXldl.pdf)

Original File Name: CARB 2nd 15-day Carrier Comments\_final.pdf

Date and Time Comment Was Submitted: 2021-08-18 17:58:24

No Duplicates.

**Comment 12 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Chris

Last Name: Forth

Email Address: [chris.m.forth@jci.com](mailto:chris.m.forth@jci.com)

Affiliation: Johnson Controls

Subject: Johnson Controls 2nd - 15 Day HFC Comments due 8/18/2021

Comment:

Please see Johnson Controls 2nd 15 Day Comments

Attachment: [www.arb.ca.gov/lists/com-attach/103-hfc2020-UTsBaFA5WWQHclM8.pdf](http://www.arb.ca.gov/lists/com-attach/103-hfc2020-UTsBaFA5WWQHclM8.pdf)

Original File Name: Johnson Controls 210818 CARB 2nd 15 day Comment letter Final.pdf

Date and Time Comment Was Submitted: 2021-08-18 19:48:36

No Duplicates.

**Comment 13 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Helen

Last Name: Walter-Terrinoni

Email Address: HWalter-Terrinoni@ahrinet.org

Affiliation:

Subject: AHRI Comments 2nd 15-day language

Comment:

Dear "Clerk of the Board"

Please see attached comments from the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) in response to California Air Resources Board's (CARB or Board) 2nd Draft 15 - Day Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants, and Foam End-Uses Regulation and discussions with CARB regarding the direction given from the Air Resources Board on December 10, 2020.

My apologies, but the website would not accept comments.

Best Regards,  
Helen

Attachment: [www.arb.ca.gov/lists/com-attach/104-hfc2020-VDVUOgZ1ADoGXwRn.pdf](http://www.arb.ca.gov/lists/com-attach/104-hfc2020-VDVUOgZ1ADoGXwRn.pdf)

Original File Name: AHRI comments regarding CARB 2nd HFC 15 day language 8 12 21.pdf

Date and Time Comment Was Submitted: 2021-08-18 23:24:59

No Duplicates.

**Comment 14 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Raj

Last Name: Patel

Email Address: Non-web submitted comment

Affiliation:

Subject: Emailed Comment from Raj Patel

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/105-hfc2020-AHJQN1E6WFQGcAJj.pdf](http://www.arb.ca.gov/lists/com-attach/105-hfc2020-AHJQN1E6WFQGcAJj.pdf)

Original File Name: Raj Patel (2021-08-03).pdf

Date and Time Comment Was Submitted: 2021-09-09 18:50:52

No Duplicates.

**Comment 15 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Jacob

Last Name: Guest

Email Address: Non-web submitted comment

Affiliation:

Subject: Comment emailed from Jacob Guest

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/106-hfc2020-UjhVMgNhWGRRNQRb.pdf](http://www.arb.ca.gov/lists/com-attach/106-hfc2020-UjhVMgNhWGRRNQRb.pdf)

Original File Name: Jacob Guest (2021-08-04).pdf

Date and Time Comment Was Submitted: 2021-09-09 18:52:48

No Duplicates.



**Comment 16 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Bryan

Last Name: Beitler

Email Address: Non-web submitted comment

Affiliation:

Subject: Email Comment from Bryan Beitler

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/107-hfc2020-BWdRJVEpV2UEbFAP.pdf](http://www.arb.ca.gov/lists/com-attach/107-hfc2020-BWdRJVEpV2UEbFAP.pdf)

Original File Name: Bryan Beitler (2021-08-05).pdf

Date and Time Comment Was Submitted: 2021-09-09 18:56:24

No Duplicates.

**Comment 17 for Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Chillers, Aerosols-Propellants and Foam End- (hfc2020) - 15-2.**

First Name: Brianna

Last Name: Ocon

Email Address: Non-web submitted comment

Affiliation:

Subject: Emailed Comment from Briana Ocon

Comment:

Please see attached.

Attachment: [www.arb.ca.gov/lists/com-attach/108-hfc2020-WzlTJ1U9WGpQOAdp.pdf](http://www.arb.ca.gov/lists/com-attach/108-hfc2020-WzlTJ1U9WGpQOAdp.pdf)

Original File Name: Brianna Ocon (2021-08-16).pdf

Date and Time Comment Was Submitted: 2021-09-09 18:57:58

No Duplicates.