RESEARCH PRODUCTS CORPORATION

8/17/2021

Richard W. Corey
California Air Resources Board
1001 I Street, 7th Floor
Sacramento, CA 95814
https://www.arb.ca.gov/lispub/comm/bclist.php

Dear Mr. Corey,

On behalf Research Products Corporation, we write to you to provide comments on the August 3rd Proposed Amendments to the Prohibitions on Use of Certain Hydrofluorocarbons regulations. We are appreciative of the opportunity to continue to provide comments to ameliorate this regulation and continue to be supportive of the trailblazing efforts of the State of California.

Based in Madison, Wisconsin, Research Products Corporation (RPC) was founded in 1938 and is an established industry leader in residential, commercial, and agricultural indoor air quality and humidity control. Our brands include Aprilaire, which provides residential solutions that include humidifiers, dehumidifiers, thermostats, air purifiers, and ventilation; DriSteem, which designs and manufacturers humification systems for the commercial market; and Anden, which provides humidity control solutions for commercial and industrial agricultural applications. As a company, we are strongly supportive of the CARB's mission to improve air quality and lower green-house gas emissions.

We would first like to thank the Commission for revisions included in the August 3rd draft, including ensuring that the compliance deadlines for dehumidifiers are the same as for similar AC products. While we continue to be principally supportive of the proposed regulations, **we wish to alert the Commission that we are concerned that compliance with the regulations may not be possible because it is currently unclear whether U.S. EPA has authorized commercially viable lower-GWP refrigerants (i.e. R-32) for use in Dehumidifiers. Under the Significant New Alternatives Policy (SNAP), the U.S. EPA maintains separate lists of approved refrigerants for Residential Dehumidifiers, Residential and Light Commercial AC Equipment, and Industrial Process Equipment. To date, the U.S. EPA has not specifically approved for these three product categories refrigerants the AC Industry is moving towards (those approved under SNAP 19 or SNAP 23) despite the fact that the equipment uses the same safety design standards.** At the same time, we understand that the Commission is seeking to move expeditiously on this rulemaking which was originally slated to be approved in December.

To balance these interests, we seek:

P.O. Box 1467 • Madison, WI 53701-1467 • Phone: 608.257.8801 • 888.257.8801 • Fax: 608.257.4357

- **An early safe harbor determination of impossibility** published alongside the FSOR which would in effect extend the compliance deadline for dehumidifiers using R-410a until 1 year from the date that the U.S. EPA approves the use of R-32 or other low GWP refrigerants authorized in SNAP 19 and SNAP 23 for use in dehumidifiers or until the dates published in the terms, whichever is the latest.

We elaborate herein.

Issue at Hand

As we stated in May, we generally agree with the Notice of Public Availability that AC units for which the codes already permit the use of A2L refrigerants and those where compliant solutions already exist should comply with the requirements by 2023. However, we wish to highlight that the EPA has not explicitly approved any A2L refrigerant covered under SNAP 19 and SNAP 23 for use in Dehumidifiers (Residential or Industrial). This problem presents potential trouble for manufacturers from a legal perspective.

In 2015, the U.S. EPA published SNAP 19, which authorized R-32 for use in Room ACs complying with an industry code standard created by Underwriter Laboratories (UL 484). Then, in June of 2021, the U.S. EPA Published SNAP 23 and authorized R-32 (and other refrigerants) for use in Residential and Commercial Air Conditioning Equipment complying with UL 60335-2-40,[1] the new standard for all Residential and Light Commercial AC and Dehumidifiers.

Yet, while Dehumidifiers also use UL 60335-2-40, SNAP 19 or SNAP 23 does not explicitly mention them. And, because the U.S. EPA did not update its separate **list of acceptable substitutes**[2] for 'Residential Dehumidifiers' in June to include the green refrigerants of SNAP 23, it is unclear if the array of green refrigerants authorized in AC equipment may be used in certain Dehumidifiers. Further, while we consider Dehumidifiers designed for Industrial use as Commercial AC Equipment, we are unsure if the EPA shares this position.

We are now concerned that the EPA may delay either (1) clarifying whether dehumidifiers are an acceptable end use or (2) performing any required risk-assessments because it is busy with a flurry of other activity surrounding the AIM Act, Energy Star, and the COVID-19 pandemic and a backlog of requests built up over the past 4 years. Further, as of July 30, the Federal OMB has

[1] More specifically the standard is: UL 60335-2-40, Standard for Safety for Household And Similar Electrical Appliances—Safety—Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers, Third edition, Dated November 1, 2019.

[2] See https://www.epa.gov/snap/substitutes-residential-dehumidifiers

been taking "extraordinary measures" to avoid a government shutdown, and we are unsure how this developing situation will affect the U.S. EPA's schedule.[3]

Urgency and Magnitude

We note that these issues are of great magnitude because the State of California and 15 other states have petitioned the federal government to adopt regulations similar to those being promulgated by the Commission. For this reason, we seek to ensure that the CARB regulations are well tailored and detailed enough to provide clarity and certainty for manufacturers.

Proposed Safe Harbor

To solve the highlighted issue, we propose the following solution:

- **An early safe harbor determination of impossibility** published alongside the FSOR which would in effect extend the compliance deadline for dehumidifiers using R-410a until 1 year from the date that the U.S. EPA approves the use of R-32 or other low GWP refrigerants authorized in SNAP 19 and SNAP 23 for use in dehumidifiers or until the dates published in the terms, whichever is the latest.

We understand that under the proposed § 95378, the Commission would allow for manufacturers to submit a request for variance. We are greatly supportive of this section precisely because of the problems we highlighted above. Still, to provide regulatory certainty for manufacturers, we would request that the commission publishes the early safe harbor determination detailed above. We make this request because it takes at least 6-9 months to purge and replace current inventories of components and to fulfill contractual obligations between sub suppliers and OEMs. In addition, dehumidifier manufacturers cannot move forward with switching to compliant refrigerants until the U.S. EPA specifically authorizes their use through regulations under the SNAP program. For these reasons, we request an extension until 1 year after the U.S. EPA authorizes alternatives under the SNAP program.

We note that the Commission requires the following be true to make an impossibility determination:

(A) A lower risk substitute is not currently or potentially available;
(B) An exemption will not increase the overall risk to human health or the environment; and
(C) The Applicant has used best efforts to anticipate and address the impossibility and any potential noncompliance.

[3] See Treasury Dept to invoke 'extraordinary measures' as Congress misses debt-ceiling deadline. Aug 2, 2021. https://www.cnbc.com/2021/08/02/treasury-to-invoke-extraordinary-measures-as-debt-ceiling-returns.html

As mentioned above, because the U.S. EPA has not clarified the scope of SNAP 19 or SNAP 23 as applying to the separate categories of Dehumidifiers, compliance with (A) depends on whether other acceptable substitutes currently exist. Under the current **list of acceptable substitutes** for 'Residential Dehumidifiers', there is only one substitute which has an ODP and a GWP below 750. This refrigerant, R-513A, is a medium-pressure refrigerant designed as a replacement for R-134A instead of R-410A. R-513A is not an "available" substitute for R-410A, which is a high-pressure refrigerant used in dehumidifiers. Research Products has identified no commercially viable design solutions (i.e. available compressors, metering devices of the size/type needed for dehumidifier applications) current on the market that are designed to use R-513A.

Next, as a part of this determination of impossibility, we note that proposed § 95378 (1)(B) requires that we demonstrate that an exemption to the compliance dates will not increase the overall risk to human health or the environment. We believe that the FSOR should adopt our position that if compressor-driven dehumidifiers were prohibited from the marketplace due to the U.S. EPA's delay in authorizing alternative high-pressure refrigerants, consumers would turn either to inefficient air conditioners with a dehumidification mode that use refrigerants approved under the SNAP rules, or to less-efficient (but still authorized) desiccant dehumidifiers. Air conditioners with a dehumidification mode, unlike compressor-driven dehumidifiers, are not tested for efficiency in dehumidification mode.[4] While hard to measure, we believe the gains in energy efficiency from using efficiently designed dehumidifiers as opposed to make-shift Air Conditioning Products or less-efficient desiccant dehumidifiers outweigh or balances out the environmental impact of continuing to use R-410A for a short period until the EPA approves of any viable substitutes.

Lastly, we note that we are commenting on the proposed regulations in order to allow our products to be designed to achieve compliance as soon as possible. While we would be happy if the U.S. EPA would act fast and clarify this regulatory uncertainty, as discussed above, we acknowledge the U.S. EPA is flooded with petitions and requests while working to resolve a backlog of requests built up over the past 4 years.

Ultimately, this safe harbor would provide Dehumidifier Manufacturers with certainty that once the EPA explicitly authorizes the use of flammable refrigerants, that they are given enough time to comply. It would also not require another 15-day or 45-day notice period.

[4] *See* Discussion from California IOUs in 85 FR 1389 [Link]

Determination and Timelines

We propose that the method by which the Commission measures whether or not the EPA has granted approval of any viable A2L refrigerant be the earliest of:

a) the date upon which the U.S. EPA notifies CARB in writing that, despite the absence of a specific discussion of dehumidifiers in in SNAP 19 and SNAP 23, that the agency interprets those rules as extending to similarly sized and installed dehumidifiers; or
b) the date the U.S. EPA publishes any determination of acceptability in the *Federal Register* for the appropriate end-use; or
c) the date the U.S. EPA publishes an affirmative clarification in the *Federal Register* on the topic in response to comments about any proposed rulemakings, on any matter.

Application of Safe Harbor

We are not requesting that this safe harbor determination bypass the application requirements contained in the proposed § 95378 (c)(1). Instead, we seek a determination that the U.S. EPA's delay in granting clarity or explicit approval for green alternatives to R-410A meets the requirements of the proposed § 95378(b)(1)(A) and § 95378(b)(1)(B) so long as an applicant can complete an adequate application under § 95378(c)(1) which demonstrates that § 95378(b)(1)(C) is met.

In closing, we would like to thank the CARB for accepting our comments and for providing a second opportunity to comment on the rule. We hope that the proposed text may become a model for other states and the U.S. EPA.

Please do not hesitate to contact me to discuss the particulars of these comments.

Pierre Harfouche

Pierre Harfouche
Codes & Regulatory Engineer
Pierre.Harfouche@aprilaire.com