Attachment 1: Chemours Filed comments on Framework Rule

The Chemours Company
1007 Market Street
PO Box 2047
Wilmington, DE 19899

302-773-1000 t
chemours.com

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U.S. Environmental Protection Agency
EPA Docket Center
Mail Code 28221T
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460.

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Re: *Phasedown of Hydrofluorocarbons: Establishing the Allowance Allocation and Trading Program Under the American Innovation and Manufacturing Act*, Proposed Rule, 86 Fed. Reg. 27,150 (May 19, 2021). Docket ID No. EPA-HQ-OAR-2021-0044.

The Chemours Company FC, LLC ("Chemours") appreciates the opportunity to comment on the Environmental Protection Agency's ("EPA" or "Agency") proposed rule to implement provisions of the American Innovation and Manufacturing Act ("AIM Act") (the "Proposed Rule").

Chemours supported passage of the AIM Act and is pleased that EPA is moving forward to implement the Act's allowance provisions necessary for the control and phasedown of hydrofluorocarbons ("HFCs") in the United States. Chemours has developed and commercialized a portfolio of low global warming potential ("GWP") products that utilize hydrofluoroolefin ("HFO") technology. HFO-based products, in addition to low GWP HFCs, can provide environmentally preferable and sustainable solutions in multiple end uses that are currently dependent on higher GWP HFCs, including refrigeration, air conditioning, foam blowing agents and propellants. Chemours' products can therefore help to facilitate the phasedown of HFCs required by the AIM Act utilizing a common metric -- the exchange value equivalent measure ("EVe") – that ensures the environmental objectives of the AIM Act will be secured in an even-handed manner.

As the comments to follow attest, Chemours supports the main elements of EPA's Proposed Rule. Chemours, however, believes that several improvements and refinements can be made during the public notice and comment process. Allowance allocations should be based on the twin objectives of the AIM Act – one, phasing down HFCs in end uses in a step-wise fashion that assures compliance with the 85% phasedown requirement, and two, preserving and enhancing U.S. manufacturing leadership and jobs. Therefore, Chemours has outlined several areas where EPA's proposed allowance allocation methodology can be improved, including with regard to initial allowance allocations and requiring that all production and importation of HFCs be required to "hold" a sufficient number of allowances.

The Chemours Company
1007 Market Street
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302-773-1000 t
chemours.com

Chemours also offers comments on several other areas covered by EPA's Proposed Rule, including how allowance trading should be conducted and how EPA should address any market share that may have been gained through unfair trade practices. Chemours also believes that EPA's Proposed Rule could be improved through consideration of several alternatives to its proposed requirement for "refillable" cylinders. Finally, Chemours offers comments regarding several technical assessments that the Agency has provisionally put forward within its draft Regulatory Impact Assessment.

In short, Chemours commends EPA for moving quickly to implement the AIM Act and issue allowances by October 1, 2021, and believes that the Agency needs to "get it right". The AIM Act offers the opportunity to achieve massive public health and environmental benefits, quantified by EPA at over $280 billion dollars. The details of the regulatory system needed to obtain these benefits is exceedingly important and EPA should endeavor to provide regulatory stability that will allow affected industries to reasonably plan for future control requirements.

We want to thank the Agency for the dedication of the staff and the impressive work it has done to date to facilitate the publication of the Proposed Rule, host the various stakeholder engagements and for the thorough consideration of the comments that are attached.

Sincerely,

Esther Rosenberg

Esther Rosenberg, Global Regulatory Advocacy
The Chemours Company FC, LLC

The Chemours Company FC, LLC

CHEMOURS COMMENTS

Phasedown of Hydrofluorocarbons: Establishing the Allowance Allocation and Trading Program under the American Innovation and Manufacturing Act

86 Fed. Reg. 27,150 (May 19, 2021)

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CHEMOURS COMMENTS

Phasedown of Hydrofluorocarbons: Establishing the Allowance Allocation and Trading Program under the American Innovation and Manufacturing Act

86 Fed. Reg. 27,150 (May 19, 2021)

I. Introduction

The Chemours Company FC, LLC ("Chemours") has long supported EPA's implementation of Clean Air Act ("CAA") provisions designed to protect the earth's stratospheric ozone layer. Chemours is a global leader in the production and sale of safe and energy efficient refrigeration, air conditioning, foam insulation, fire suppression, propellants and waste heat recovery fluids and thus has a vital interest in the transition to non-ozone depleting substances ("non-ODS").

Recognizing the serious public health and environmental issues presented by climate change, Chemours has also supported international efforts led by the United States to transition away from hydrofluorocarbons ("HFCs") used in many of the applications cited above as substitutes for class I and class II ODS. In this regard, Chemours has supported efforts to obtain the advice and consent of the U.S. Senate regarding the Kigali Amendment to the Montreal Protocol and believes the United States should ratify the Amendment and participate in its implementation through future Meetings of the Parties to the Montreal Protocol.

Congress developed the American Innovation and Manufacturing Act ("AIM Act") to provide a statutory framework for the phasedown of HFCs in the United States. This law directs EPA to phasedown the production and consumption of regulated substances (HFCs) in a comparable timeframe to that provided by the Kigali Amendment. And we believe that, on the whole, the Environmental Protection Agency ("EPA") has done a commendable job in developing a proposed rule within a short period of time given the requirement to both propose and finalize a rule to phasedown the production and consumption of HFCs in the United States, using an entirely new allowance allocation and trading program, within 270 days.

As commendable as EPA's efforts have been to develop and finalize a plan for the phasedown of HFCs and allocation, Chemours believes that there is room for improvement in the proposed rule in several areas, most particularly with respect to the core regulations both defining how allowance amounts will be calculated and how such allowances (which also compose the compliance system) will be allocated within the United States. Specifically, Chemours believes that the proposed rule can be improved and clarified in several areas:

- EPA should use the <u>average of each active party's highest 3 years of EVe weighted production and/or consumption (as measured in annual market share) during the years 2011-2019 as the basis for determining allowance allocations for active producers and importers</u> rather than the proposed 2017 to 2019 "highest year" (as measured in EVe weighted volume) methodology. An adjusted average market share using multiple data points taken over a longer baseline period would provide for a more equitable

distribution of allowances than under EPA's proposal. For avoidance of doubt, Chemours does NOT support a requirement that the highest 3 years must be consecutive.

- EPA should allocate allowances solely to historic producers and importers of HFCs. While EPA has proposed that most allowances would be allocated on this basis, it is also proposing allowance set-asides and other measures affecting allowance allocations that are not specified in the AIM Act. In addition, EPA should not allocate allowances to entities that did not report prior production and consumption of HFCs despite a legal obligation to do so.

- As EPA has done in all prior phaseouts of class I and class II ozone depleting substances, EPA should allocate allowances for multiple years. Multi-year allocations are necessary to address commercial realities and enables companies to plan for the acquisition of necessary materials and establish stable supply chains. EPA should also allocate allowances on a company-wide rather than facility-level basis.

- Consistent with legislative intent, EPA should require allowances for *imported products that contain HFCs* as well as for HFCs that are imported in bulk containers. To allow importation of HFC containing products without allowances would create several strong incentives for foreign production to the direct disadvantage and economic injury of U.S. producers and companies engaged in the same business.

- EPA must address any market share that has been gained through unfair trade practices. As detailed in our comments and an attached report, several importers of HFCs produced in China have used unfair trade practices to penetrate the U.S. market. Obtaining market share through such means should not be further rewarded through the allocation of allowances.

- EPA's proposed "set-aside" pool of allowances is not authorized by the AIM Act and EPA has not articulated a supportable rationale for its creation. EPA's proposed allowance allocations to "new entrants" is also directly contrary to EPA's 30-year history concerning allowances for the ODS phaseout.

- EPA should follow the prior precedent of the ODS phaseout by not imposing a "confiscatory" transfer tax which was not contemplated when Congress directed that EPA promulgate an allowance allocation and trading program. Any offsets required for the transfer of allowances should be minimized.

- In lieu of EPA's proposal to require "refillable" cylinders for HFCs, EPA should implement much less expensive and more effective alternatives to counter illegal imports of HFCs into the United States. EPA's technical analysis has grossly underestimated the costs of this requirement and likely overestimated the emissions reductions that can be achieved by banning non-refillable cylinders.

- EPA should clarify provisions with respect to HFC-23 in line with AIM Act requirements and current efforts to destroy, to a very high efficiency, any HFC-23 produced that is not directly utilized in products.

- With respect to EPA's request for comment on methods to implement the AIM Act in 2024 and later years, EPA must recognize that it has only limited, specific authority conveyed by the AIM Act for this purpose. While EPA requests comment on a wide range of alternatives, the AIM Act specifically directs that EPA employ an allowance allocation and trading program.

- Chemours supports many other elements of EPA's proposed rule, including reasonable transparency provisions. In addition, certain proposed elements concerning container heels and the calculation of violations are well-intended but can be improved upon. EPA should also clarify timelines for destruction as well as for the use of an imported feedstock.

- EPA needs to correct several errors contained in its draft regulatory impact assessment ("RIA") and issue a corrected RIA in connection with publication of a final rule.

In summary, Chemours appreciates the considerable effort on the part of EPA that was necessary to proceed with this rulemaking in a timely fashion. But given the importance of this rulemaking to U.S. producers, importers and their customers down the value chain, EPA should take the time necessary to improve upon its initial work-product prior to finalization.

Congress approved the AIM Act to provide for both the phasedown of HFCs in the United States as well as the preservation and enhancement of associated jobs in the United States. EPA should examine all of its proposed allowance provisions to ensure that both objectives are pursued and that the predicted gains in economic activity and employment that were projected for the AIM Act – 150,000 direct and indirect U.S. jobs as well as $38.8 billion in annual economic activity – are fully realized.

Our detailed comments on how such goals may be accomplished follow.

II. Chemours Supports a More Inclusive and Fair Approach to Allowance Allocations Utilizing the Years 2011-2019

A. EPA Should Use Multiple Market Share Data Points Selected from Full 2011-2019 Production and/or Consumption of HFCs to Allocate Allowances; EPA Should Not Finalize Proposed 2017 to 2019 Allocation Scheme

EPA has proposed using the years 2017 to 2019 for the "initial framework" to determine the amount of allowances to be allocated to active producers and importers, with "active" status defined as companies that had documented HFC production or consumption in 2020.[1] EPA would utilize a company's single highest year of respective production and/or consumption of HFCs on an exchange value ("EVe") weighted basis to determine allowance allocations for

[1] 86 Fed. Reg. at 27,170.

2022-2023, calculating each producer's and importer's relative production and/or consumption market share.[2] EPA is also taking comment on utilizing the 2011-2013 for allowance calculations and allocations as well as "some other combination of years, including all years between 2011 and 2019." In response to this request for comment, Chemours supports EPA's approach of using 2020 production and/or consumption activity as an eligibility criterion for allocation of allowances. However, Chemours supports utilizing respective averages of an entity's highest 3 years of production and/or consumption annual market share during the years 2011-2019 as weighted by EVe as the basis for determining allowance allocations for active producers and importers. Again, for the avoidance of doubt, Chemours does NOT support a requirement that the highest 3 years must be consecutive. For the reasons outlined below, Chemours believes this allocation methodology is superior to EPA's proposal of a "highest year" 2017-2019 allocation methodology.

1. *Using Multiple Annual Market Share Data Points over Full Period 2011-2019 in Methodology to Allocate Allowances to Recently Active Producers and Importers is More Representative of the HFC Market*

Using multiple highest years selected from a 9-year period of production and/or consumption would help to obviate any unusual variability in production or import to calculate allowance allocations. Chemours believes that EPA's main proposal to utilize a party's single highest production and/or consumption year in 2017 to 2019 is seriously flawed in this respect in that the formula would give undue weight to a producer or importer who experienced an unusually high single period of production and/or consumption during any one of those three years. Such a single "highest year" of production and/or consumption could be attributable to any number of circumstances including temporary market conditions, an unusual carryover of production/consumption from one year to the next, or unusually high production or import at the end of one year. There is no reason to believe that using a party's single "highest year" would assist in transitioning away from the use of HFCs or promoting the environmental goals of the AIM Act. Rather, EPA's proposed option would essentially "lock in" such temporary variations and thereafter convey a disproportionate benefit or disbenefit.[3]

In contrast, using an average of a party's three highest annual market shares over the years 2011 to 2019 would represent a more statistically stable approach, given the availability of longer stream of production and consumption data, including the AIM Act statutory baseline years of 2011 to 2013, while accounting for market shifts that may have occurred during the longer timeframe. In Footnote 48 in the Proposed Rule, EPA stated "If EPA finalizes an approach where it uses each company's highest market share instead of highest production and consumption level, the Agency would add up each company's high production and consumption

[2] *Id.*, proposed 40 C.F.R. §§84.9, 84.11. EPA proposes to determine individual allowances by multiplying each entity's percentage of production/consumption with reference to the amount of "general pool" allowances. *See* §§84.9(a)(4), 84.11(a)(4). For ease of terminology, these comments refer to this calculation as an entity's "respective" production and consumption.

[3] EPA has included an Advanced Notice Of Proposed Rulemaking in this proposed rule which discusses various theoretical allowance allocation methods that the Agency is considering for use in 2024 and potentially succeeding years. But by simply taking comment on these concepts, EPA would conceivably remain in position to utilize the 2022-2023 methodology in the future years. Therefore, it cannot be discounted for purposes of this rulemaking that using a highest year methodology for 2017 to 2019 will not convey a lasting benefit or have a lasting effect. This is certainly with the range of possible long-term outcomes.

market share in the relevant years, and divide each company's high production and consumption market share by the total amount to determine what each company's revised market share would be for allowances available in the year." Use of annual market share as described in Footnote 48 instead of raw production and/or consumption data helps to normalize variations in market volume by putting all nine years on an equal footing. This recommended approach thus represents a better "picture" of the U.S. HFC industry as a whole. EPA cannot assume, and the docket contains no technical information supporting the proposition, that an allocation system based on single data points taken from a shorter period of more recent years is somehow more representative of the *future market* in which allowances will be required to be "held" before production or importation can take place. Rather, it may be argued that those who have participated in the market for a longer period of time are more likely to participate in the future market given their breadth of experience and capital investment. This is supported by the fact that many of the parties operating in the US market today (or their corporate predecessors) have participated in the previous phasedowns of Class I and Class II ODS. And a longer averaging period helps obviate the possibility that high market participation in just one year will inordinately skew the allocation of allowances among all market participants.

Under Chemours proposed alternative, relative "newcomers" to the production and importation of HFCs could still receive allowances, but they will not receive an outsized share relative to entities that have been producing and importing HFCs over the last decade. Apart from being a more stable method to allocate allowances, and as outlined in greater detail below, selecting three highest market share data points over the longer 9-year data period thus also promotes fairness among market participants by recognizing the importance of consistency. In contrast, EPA's stated rationale for using the highest single year "to account for fluctuations in the market" is irrational.[4] Instead, of accounting for fluctuations (*e.g.*, so that an unusual production/consumption year would not *disadvantage* some entities) EPA's methodology would essentially lock in such market fluctuations and carry a serious risk of "over-rewarding" entities that happened to have an unusually robust production/consumption year in either 2017, 2018 or 2019.

2. Using *Average of Three Highest Market Shares over 2011-2019 Period for Allocation Methodology Promotes Fairness*

Using the average of a party's three highest production and/or consumption market shares over 2011-2019 would provide more stability and predictability to the HFC allowance market than EPA's proposed methodology as well as recognize the sizeable investments that have already been made, and will continue to be necessary, for the development of safe, environmentally-superior alternatives to HFCs. Specifically, using three highest market shares of 2011-2019 production would recognize that a substantial investment of resources was necessary in earlier years to allow for the transition from HFCs to low GWP HFOs that occurred in the latter half of the 2011-19 period. This transition would not have occurred except with the direct support of some producers. These investments have paid off environmentally, resulting for example in a transition from HFC-134a to HFO-1234yf in motor vehicle air conditioning ("MVAC") systems.

[4] 86 Fed. Reg. 27,170.

In contrast, the proposed approach of using the highest production or consumption occurring in 2017-2019 would actually *penalize* producers that took pre-2017 action to reduce a major end use of HFCs for MVAC systems and to obtain necessary certifications and regulatory approvals for other HFC substitutes. These companies would be penalized solely because they developed and marketed substitutes for HFCs prior to 2017 and thus may have produced or imported lesser amounts of HFCs in 2017 to 2019. But it is just such investments – which exceed $1 billion to date -- that have made the AIM Act's phasedown of HFCs technically and economically feasible in the United States, as well as assisting in the global transition away from HFCs. In addition, domestic producers rationalized high GWP assets and production capability in order to advance lower GWP facilities that offer long-term climate benefits. As a result, these producers reduced CO_2 equivalent emissions in advance of EPA's proposed rulemaking.

Over many years and at considerable expense, Chemours developed Opteon™ low global warming refrigerants and foam blowing agents, including HFO-1234yf to replace HFC-134a in automotive air conditioning systems, a major category of existing HFC use. Chemours also developed Opteon™ XP10 as a HFC-134a replacement in stationary equipment, Opteon™ XP40 as a R-404A/R507 and R22 replacement, Opteon™ XP44 for refrigerated transport and other low discharge temperature uses, Opteon™ XL41 as a R-410A replacement, Opteon™ XP30 for low-pressure chillers, and Opteon™ 1100 for foam insulation. These products were developed both in response to and in support of efforts to reduce production and use of HFCs and the necessary financial commitments to develop these environmentally superior productions were made well in advance of Congressional approval of the AIM Act. But taken together, along with similar efforts by other U.S. manufacturers, these new lower GWP products will be essential in allowing a transition away from the continued use of HFCs, which themselves represented a transition from substances with high ozone depletion potential.

Ironically, using data from just the 2017 to 2019 time period could correspondingly *reward* entities that took little or no action to transition away from HFCs over the last decade. The allocation methodology proposed by EPA would grant relatively more allowances to entities that in recent years either continued production and consumption of high GWP HFCs or just recently engaged in such activity, perhaps for as little as one year. Using 2017 – 2019 as the basis for allocation, importers using foreign sourced HFCs would gain an advantage under EPA's proposed allowance methodology despite not having made any significant investment to support a transition to lower climate impacting solutions. In contrast, using the average of a party's three highest production and/or consumption market shares during 2011-2019 as outlined above would recognize all entities that actively participated in the HFC market, including more recent participants, but it would help avoid this counter-intuitive result of rewarding market participants who didn't make the investment to move to lower climate impacting options.

B. Allocation of Allowances Based on Historic Production and Consumption is Consistent with Legislative Intent

The allocation of allowances to historic producers and importers has a "proven track record" and would provide for an orderly phasedown of HFCs, similar to that experienced in the phasedown periods for ozone depleting substances ("ODS"). Allocation of allowances to historic producers and importers is also supported by the 30-year history of EPA's stratospheric

ozone program which has always allocated allowances in this manner. In regulations phasing out class I and class II ODS, EPA relied on information provided by companies which historically manufactured and imported regulated substances and allocated allowances on the basis of this information. Congress openly and deliberately intended a similar outcome in enacting the AIM Act. During consideration of the legislation, multiple statements from numerous parties involved in the development of the AIM Act attested to intent:

- "This legislation is modeled on Title VI of the Clean Air Act, which was enacted in 1990 with 401 bipartisan votes in the House and proved an able vehicle to foster an orderly, market-based phase down of HFCs' predecessors."[5]

- "These provisions are modeled on and integrated with the current Clean Air Act requirements applicable to this industry."[6]

- "The legislation is based substantially on existing EPA programs that allowed for orderly transitions from earlier generations of refrigerants in ways that protected the environment while supporting American-based companies' market objectives."[7]

The AIM Act provides for a graduated phase-down in the production and consumption of HFCs in the United States that will continue until 2036, when an 85% phasedown is specified.[8] In both form, substance and intent, the legislation is modeled on Title VI of the Clean Air Act. 42 U.S.C. §7671. The AIM Act "mimics" this statutory structure, including using some of the same terminology that is used in various provisions of Title VI. The fact that the AIM Act focuses exclusively on obtaining reductions of HFCs (which do not contribute to ozone depletion) as opposed to other controlled substances (known as class I and class II substances within Title VI that have the potential to deplete the stratospheric ozone layer) does not obviate this parallel statutory construction.

Specifically, the AIM Act incorporates provisions which are directly parallel to those contained in Title VI of the Act. These provisions include the use of similar definitions to Title VI in the AIM Act to govern the HFC phasedown (CAA section 601),[9] require monitoring and reporting of controlled substances (CAA section 602),[10] to provide for graduated phasedown schedules (CAA sections 604 and 605)[11] authorize exchange of allowances (CAA section 607)[12] provide for essential uses (CAA section 604(d))[13] and inclusion of a provision allowing EPA to accelerate the statutory phasedown schedule (CAA section 606).[14] This legislative structure was

[5] Hearing on H.R. 5544, Subcommittee on Environment and Climate Change, Energy and Commerce Committee, January 14, 2020, Opening Statement of Chairman Paul D. Tonko at 2.

[6] *Id., Testimony of David D. Doniger, Natural Resources Defense Council at 3*

[7] *Id*., Testimony of John Gaylen, Chairman, Board of Directors, Air-Conditioning, Heating, and Refrigeration Institute (AHRI) at 9.

[8] Section 103(e)(2) of Consolidated Appropriations Act, 2021, Pub. L 116-260.

[9] Consolidated Appropriations Act, 2021, Sec. 103(b).

[10] *Id*., Sec. 103(d).

[11] *Id.*, Sec. 103(e)

[12] *Id*., Sec. 103(g).

[13] *Id*., Sec. 103(e)(4).

[14] *Id*., Sec. 103(f).

deliberate as evidenced by Congressional statements prior to enactment,[15] as well as various facets of the legislation, including use of the same sequencing as parallel Title VI provisions.

The integration of the AIM Act with Title VI is also evident in a provision that requires enforcement, information, citizen suit and administrative law provisions of the CAA to apply to the implementation of the legislation.[16] This provision cross references CAA sections 113, 114, 304 and 307 and provides that such sections of the CAA "*shall apply* to [Sec. 103] and any rule, rulemaking, or regulation promulgated by the Administrator pursuant to [Sec. 103] as though this section were expressly included in Title VI of [the CAA]."[17] One consequence of this legislative structure is that the procedural requirements of the CAA in terms of public notice and comment,[18] the content of proposed rules,[19] venue and deadlines for judicial review[20] apply to rules promulgated pursuant to the AIM Act.

Finally, the AIM Act was intended to promote domestic production and investment. While titles may not be considered dispositive of intent, H.R. 5544 and S. 2657 as introduced and section 103 of H.R. 113 as approved by Congress were all entitled the "American Innovation and Manufacturing Act" for a reason. As explained by the legislation's prime sponsor in the U.S. House of Representatives and Chairman of the House subcommittee of jurisdiction:

> United States manufacturers are already investing billions of dollars in the research and development of new products and equipment to maintain their competitiveness. In fact, American companies are global leaders in the development of HFC substitutes. One such class of substitutes are known as HFOs. HFOs are more environmentally friendly. But even more importantly, American manufacturers stand to gain the most in the global marketplace by leaning into this transition.
>
> According to a study by the Interindustry Forecasting at the University of Maryland, the HFC phase-down will drive the creation of some 33,000 new United States manufacturing jobs, $12.5 billion more in direct manufacturing output annually, a significant trade balance improvement in equipment and chemicals, and a 25 percent growth of the U.S. share of the global export market.[21]

EPA's stated rationale for its allowance allocation methodology – to account for "fluctuations in the market" – does nothing to account for this underlying legislative intent that the AIM Act serves to advance U.S. manufacturing jobs and improve the U.S. balance in trade. EPA should therefore adopt an alternative allowance methodology, such as that proposed by Chemours, which would better address this statutory purpose by recognizing long-term commitments to the market for

[15] *See* n's. 5-7, *supra*.
[16] *Id*., Sec. 103(k).
[17] *Id*., Sec. 103(k)(1)(C) (emphasis added).
[18] *See* 42 U.S.C. §7607(d)(2)-(6), (h).
[19] *Id*., §7607(d)(3).
[20] *Id*., §7607(b).
[21] Opening remarks of Chairman Paul Tonko, Promoting American Innovation and Jobs: Legislation to Phase Down Hydrofluorocarbons, January 13, 2020, House Energy and Commerce Committee, Subcommittee on Environment and Climate Change, transcript at 2.

HFCs and HFC substitutes rather than more recent import activity to the primary benefit of foreign producers.

C. Allocation of Allowances to Historic Producers and Importers is Consistent with EPA's Prior Implementation of Clean Air Act Title VI

Just as Title VI of the CAA provides for the phase-out of class I and class II substances[22] by concentrating on the production and consumption (import) of these regulated substances, the AIM Act similarly phases down the production (and importation) of HFCs into the United States.[23] As noted above, the provisions of the AIM Act regarding HFCs were based on comparable provisions in Title VI of the CAA. Therefore, the AIM Act is best interpreted as phasing down HFCs using an allowance allocation system that is consistent with regulations promulgated by EPA for the phase-out of class I and class II ODS, subject to certain exceptions, just as Title VI provided for a phaseout of class I and class II ODS, subject to certain exceptions.[24]

In this regard, Title VI required EPA to promulgate regulations to "phase out the production" of class I and class II ODS and to "ensure" that the consumption of these substances was phased out "in accordance with the same schedule."[25] EPA regulations to implement these provisions used data obtained from companies that produced and imported class I substances during baseline year(s) and allocated allowances on the same basis.[26] EPA also utilized this methodology with respect to the phaseout of class II HCFCs. EPA regulations promulgated a decade after the first class I regulations apportioned baseline production and consumption allowances to individual companies based on historical production and consumption of class II substances.[27] EPA has not deviated from this approach in nearly three decades. The most recent rule governing the HCFC phaseout continues to allocate allowances to those who historically produced and imported these substances.[28]

The AIM Act contains a similar directive to that contained in CAA Title VI. The EPA Administrator must "ensure that the annual quantity of all regulated substances produced or

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[22] Class I substances include CFCs, halons, carbon tetrachloride and methyl chloroform; class II substances consist of HCFCs.

[23] It should be noted that the difference between the "phaseout" provided in Title VI and the "phasedown" as provided in the AIM Act may not actually constitute a difference in the longer term. Several provisions of the AIM Act provide mechanisms to accelerate the phasedown and EPA is authorized to determine whether a "technical transition" is warranted for regulated substances used in a sector or subsector. *See* AIM Act, section 103(i). Thus, EPA's attempt to implement the AIM Act differently from Title VI on this basis (*see* Section VI of these comments below regarding the proposed set aside pool) lacks statutory support. (*See* 86 Fed. Reg. at 27,176 claiming "it may be appropriate to continue to facilitate participation of new market entrants" on the basis of the difference between a "phaseout" and a "phasedown.") In the proposed rule, EPA has not disclaimed authority to utilize the AIM Act to accelerate the phasedown, nor disclaimed any ability to restrict end use of HFCs even to the extent of a 100% or near 100% phaseout. EPA, therefore, cannot claim to derive any authority based on the supposed differential between a "phaseout" in Title VI and "phasedown" in the AIM Act.

[24] See, for example, exceptions for medical devices, aviation safety, sanitation and food protection and critical uses. CAA §§ 604(d)(1)-(6), 42 U.S.C. § 7671c(d)(1)-(6).

[25] CAA §§ 604(c), 605(c), 42 U.S.C. §§ 7671c(c), 7671d(c).

[26] *See* 57 Fed. Reg. 33,754, 33,761-63 (July 30, 1992), 58 Fed. Reg. 65,018, 65,065-68 (Dec. 10, 1993).

[27] *See* 68 Fed. Reg. 2,851-3 (Jan. 21, 2003).

[28] 85 Fed. Reg. 15,258 (Mar. 17, 2020)); 40 C.F.R. §82.16 (a)(1), Tables 1 and 2.

consumed in the United States" does not exceed an amount calculated from "the production baseline" and "the consumption baseline" and the required percentage reduction in HFCs for a specified year.[29] Thus, EPA should adopt the same approach for allocating allowances to implement the HFC phase-down as it did with respect to the class I and class II ODS phase-out. This perspective is further strengthened by observing that the overall limit for production and importation of HFCs in the AIM Act is, in part, tied to the historical production and consumption of the *same substances* regulated under Title VI, *i.e*., CFCs and HCFCs.[30]

The other element used in the AIM Act to calculate production and consumption baselines (which form the basis for calculating the available HFC allowances each year) is the prior production and consumption of HFCs from January 1, 2011 to December 31, 2013.[31] Therefore, the logic for allocating allowances based on this prior production and consumption points in the same direction as that for class I and class II allowances and allowances based on prior CFC and HCFC production and consumption. Allowances should be distributed to those who engaged in this prior production and consumption. This interpretation is further buttressed by the fact that language allocating allowances (AIM Act, sec. 103(e)(1)(D)) is contained within the same subsection as provisions providing for the use of historical CFC and HCFC production and consumption data in calculating baseline amounts.

In earlier transitions away from the use of CFCs and HCFCs, companies that previously produced regulated substances were considered to be the most impacted by the mandatory phasedown and eventual phase-out of their product lines. In order to reduce the production, import and use of these chemicals, EPA obtained information from companies concerning their prior production, import and export of regulated substances and used this data to calculate companies' baseline production and consumption allowances.[32] The phase-down and ultimate phase-out of class I and class II substances occurred through EPA applying a declining percentage of individual company baselines to the allocation of allowances that were necessary for further production and import.[33] As referenced above, EPA also adopted the same approach with regard to the phase-out of class II substances despite differences in the statutory language applying to these substances.[34] EPA regulations provided that "[e]very person apportioned baseline production allowances for class I controlled substances under 82.5(a) through (e) is also granted potential production allowances for [class II substances]."[35] In other words, class II

[29] Sec. 103(e)(2)(B). The applicable percentage for years 2020-2036 and thereafter is contained in a table. Sec. 103(e)(2)(C).

[30] *See* Sec. 103(e)(1)(B)(ii), (C)(ii).

[31] AIM Act, Sec. 103(e)(1)(B)(i), (C)(i).

[32] *See* 57 Fed. Reg. 33,574 (July 30, 1992).

[33] As explained in more detail in the final 1992 rule, "EPA obtained information on the documentation of companies' 1989 production, import, and export of [Class I substances] through a request issued under section 114 of the Act . . . Based on this information [with certain adjustments] the Agency calculated companies' baseline production and consumption allowances for the groups of newly regulated chemicals specified by section 602 (i.e., Group III—the newly regulated CFCs; Group IV – carbon tetrachloride; and Group V—methyl chloroform)." *Id.* at 33,781.

[34] For example, EPA was directed only to promulgate regulations to phase out production and consumption of class I substances (CAA §604(c)) versus regulations phasing out the production and consumption as well as "restricting the use" of class II substances (CAA §605(c)).

[35] 548 Fed. Reg. 65,068 (Dec. 10, 1993); 40 C.F.R. §82.9(a).

allowances were granted based on percentages of allowances apportioned under class I apportionments.

EPA has described this allocation system as one that facilitates "an orderly phase-out"[36] There are good reasons for this assessment. Allowances, based on historical information, inform both regulated parties and the market precisely what quantities of regulated substances can be produced and when. Given that allocation rules often span several years duration, maintaining this allocation methodology over time provides stability and predictability. Companies involved in the production and importation of regulated substances are given both information needed for production and supply chain planning and clear advance notice as to when new alternatives will need to be developed and brought to market. Thus, continuing this procedure both duplicates the past success of the stratospheric ozone program and recognizes the large investments that producers and importers have already made, and will need to make, in producing acceptable HFC substitutes. Conversely, there is no statutory directive in the AIM Act for EPA to utilize a different allowance allocation system and EPA should not attempt to "re-invent the wheel" when the Act clearly directs the Agency to follow the past pattern and practice regarding allowance allocations.

III. EPA Must Take Several Steps to Ensure Allowance Baseline Calculations Conform to the AIM Act and Promote U.S. Manufacturing

A. EPA Must Use 2011-2013 for Production and Consumption Baselines

EPA has proposed to use the 2011-2013 period for the calculation of HFC production and consumption baselines.[37] EPA has not, however, incorporated these statutory periods into the proposed regulations in 40 C.F.R. Part 84. EPA's proposed regulatory text uses a calculated amount of 375 MMTEVe and 299 MMTEVe for production and consumption baselines, respectively.[38] Rather than provide static numbers alone which cannot be independently verified by commenters, EPA should include regulatory text which incorporates the statutory baselines provided in the AIM Act. This is needed since EPA warns that "[o]nce established through the final rule, EPA does not intend to amend the baseline."[39]

The use of the 2011-2013 period for the calculation of HFC baselines is explicitly required by the AIM Act.[40] Therefore, any final regulations establishing specific amounts of the baselines must conform to this statutory mandate (as well as the statutory periods for HCFCs and CFCs). The AIM Act defines both the production and consumption HFC baselines with reference to these dates, but further references this period with regard to exchange values,[41] compliance provisions[42]and the quantity of allowances calculated under AIM Act.[43] In other

[36] 84 Fed. Reg. 41,510, 41513 (Aug 14, 2019).
[37] 86 Fed. Reg. at 27,166, Table 4.
[38] See Proposed 40 C.F.R. § 84.7(a)-(b).
[39] *Id*. at 27,166.
[40] AIM Act, section 103(e)(1)(B)(i)(I)-(II), (e)(1)(C)(i)(I)-(II).
[41] AIM Act, section 103(e)(1)(D), cross-referencing subparagraphs (B) and (C), cited *infra*.
[42] AIM Act, section 103(e)(2)(B).
[43] AIM Act, section 103(e)(2)(D), referencing section 103(e)(2)(B).

words, the statute is clear on its face that the HFC production and consumption baselines used for the phasedown of HFCs must use HFC production and consumption within 2011-2013.

Use of historical baselines is also consistent with prior phaseout of ozone depleting substances under Title VI of the Clean Air Act which, in all instances, used historical production and consumption in order to calculate the amount of available allowances during years in which the production and consumption of class I and class II substances was controlled.[44] And, as noted elsewhere in these comments, the AIM Act was intentionally drafted to follow provisions of Title VI, thus providing further statutory evidence of Congressional intent on how allowances should be calculated and allocated.

B. Entities That Did Not Report Production and Consumption of Fluorinated GHGs Despite Legal Obligation to Do So Should Not Receive Allowances.

Companies have been required to report production and importation over 25,000 metric tons of carbon dioxide equivalent since 2010. 40 C.F.R. Part 98, Subpart OO. These requirements were contemporaneous with the 2011-2013 baseline period and included QA/QC requirements related to the data. Therefore, in an instance where an entity did not report production or importation of HFCs despite legal requirements to do so, EPA should not accept any "after the fact" calculations for the purpose of receiving allowance allocations. Apart from any considerations concerning non-contemporaneous data calculations, EPA should not reward non-compliance with allowance allocations in 2022-2023 or subsequent years.

EPA promulgated a final rule to establish the first 30 subparts of 40 C.F.R. Part 98 in 2009.[45] Since that time, EPA has taken 33 separate actions to promulgate rules or provide other regulatory notices.[46] EPA also maintains a website regarding greenhouse gas reporting requirements.[47] This website contains the most recent verified reported data. Thus, over the last decade, there has been more than adequate notice to those who may be required to report GHG emissions of the extent of those requirements and the means by which such emissions should be reported to the EPA. If EPA has determined that data reported under Subpart OO is the most reliable data on which to base a portion of the required allowance allocations, it should not allow for exceptions for those who were required to report, but didn't, even if such late reporting could be subject to enforcement actions.[48]

C. EPA Should Allocate Allowances for More Than One Year

1. Consistent with Title VI of the CAA, the AIM Act Allows for Multi-Year Allowances and EPA Should Similarly Provide Multiyear HFC Allowances

Section 103(e)(2)(D)(i) of the AIM Act requires EPA to use the total quantity of allowances calculated for a year to determine the quantity of allowances that may be used in a

[44] As noted in VI.B, even where HCFC allowances were allocated to "new entrants" such allowances were calculated based on historical information.

[45] 74 Fed. Reg. 56,260 (Oct. 30, 2009).

[46] See https://www.epa.gov/ghgreporting/rulemaking-notices-ghg-reporting

[47] https://www.epa.gov/ghgreporting.

[48] Elsewhere in the proposed rule, EPA indicates that if a producer fails to keep records on production or fails to submit reports, the producer could be subject an enforcement action. 86 Fed. Reg. 27,194.

year "not later than October 1" of the preceding calendar year. EPA may also promulgate an accelerated schedule for the phaseout of HFCs pursuant to Sec. 103(f) that is not lower than allowances used during the prior year. Thus, except for years in which the EPA newly accelerates the phasedown of HFCs imposing a lower level of allowances than specified under the formula contained in section 103(e)(2)(C), there is no statutory difficulty to the allocation of allowances for more than one year. EPA must only determine the amount of allowances by October 1st of the year prior to the last year for which multi-year allowance allocations would apply. EPA has acknowledged this aspect of the AIM Act:

> The EPA Administrator would bear responsibility for allocating allowances either on an annual or multiyear basis, following a phase-down schedule for production and consumption.[49]

EPA has also noted that there are strong similarities in how the AIM Act would be implemented to Title VI:

> Mr. Tonko . . . And how does the regulatory program that this legislation creates compare to existing programs under Title VI of the Clean Air Act.
>
> Ms. Newberg. There are many similarities between what is in this bill [legislation that became the AIM Act] and what is in the current Title VI Clean Air Act and how we implement that in the domestic program. There are a few differences between the two, but these are relatively provisions that are more niche. And most of the main components, particularly the phase-down is very similar.
>
> Mr. Tonko. Thank you. And do you foresee EPA implementing a program that phases down HFCs in a substantially similar manner as to how CFCs and HCFCs were addressed?
>
> Ms. Newberg. I can speak to what is in this bill, and if we were to implement something that was based on this bill, then there is certainly a likelihood that we would do so in a similar manner.[50]

Given the strong parallels between the statutory provisions of the AIM Act and CAA Title VI and EPA's previous implementation of allowance systems for both CFCs and HCFCs, EPA should interpret the AIM Act to require multiyear allowances where feasible. Multiyear allowances have provided regulatory stability in implementation of the phasedown and phaseout of various ODS and EPA has not provided any rationale for deviating from this past interpretation of its authority and past practice with regard to implementing the AIM Act. This is particularly true given that, if implemented on an annual basis, producers and importers would be given only 3 months advance notice of allocation amounts for the upcoming year, presuming that

[49] Testimony of Cynthia Newberg, U.S. EPA Office of Stratospheric Ozone, House Energy & Commerce Subcommittee hearing on AIM Act at 21, cited *infra*, n.51.

[50] *Id*. at 22-23, Ms. Newberg responding to questions from Representative Tonko, lead sponsor of H.R. 5544, introduced in House of Representatives on January 7, 2020.

EPA could ensure Federal Register publication of a rule on or before October 1st of the prior year pursuant to AIM Act section 103(e)(2)(D). While 2022 allowance allocations may prove to be an anomaly by necessity (given the need to promulgate this rule within 270 days of enactment) there is no reason why EPA could not promulgate multiyear allowances consistent with the statutory step-down periods provided.[51]

2. EPA Previously Granted Multiyear Allowances and Should Similarly Provide for Multiple Year Allowances Under the AIM Act

Since the inception of the phaseout of ODS under CAA Title VI, EPA has recognized the value in allocating allowances for multiyear periods. As indicated by EPA in 1999:

> For class I substances, a quantity of allowances was allocated to listed companies as a baseline in the Federal Register. Allocating allowances for the full time period until a particular phaseout date provides certainty and stability for the market. Assuming the regulatory program includes smooth procedures for trading allowances, the full-term allocation of allowances establishes the basis for a 'marketable permit' system.[52]

In the phaseout of HCFCs, EPA provided annual allowances covering all years included within specified "step down" periods.[53] These phasedown periods included periods from 2010 through 2014, 2015 to 2020 and 2020 to 2029. In the latest HCFC allocation rule, EPA allocated production and consumption allowances for all years 2020 to 2029, or *a full 10 years*.[54] As per the Agency's own observations above, EPA should similarly specify annual allowances that should be available during the full AIM Act step down periods in order to promote stability and allow for efficient business planning and the associated allocation of resources.

From a practical standpoint, timeframes longer than one year – or even 3 months[55] should EPA provide the minimum notice permitted under the AIM Act to allocate allowances for an upcoming compliance year – are needed to address real world commercial realities. Producers need to be able to plan for the acquisition of production and packaging materials well ahead of the time that they will be needed. Producers also need to schedule production runs and equipment maintenance in advance and "firm up" necessary supply chains that support production. Multiyear contracts are often used for raw materials and sales commitments. Not knowing the amount of allowances that one will receive for upcoming years (absent efforts to accelerate the transition through additional rulemaking) both inhibits planning and the "smooth

[51] EPA has noted within the proposed rule that allowances may be later revoked or reduced and thus would have the ability to later reduce allocations due to any mistake in the initial allocation or with regard to an acceleration of the schedule pursuant to section 103(f).

[52] 64 Fed. Reg. at 16,377 (April 5, 1999).

[53] *See, e.g.,* 74 Fed. Reg. 66,412 (Dec. 15, 2009). In this rule, allowances were allocated for the production and consumption of HCFC-22 and HCFC-142b as well as other HCFCs for which allowances were not previously allocated. Allowance allocations covered all control periods (years) between and including 2010 to 2014, or a full 5 years.

[54] 85 Fed. Reg. 15,258 (Mar. 17, 2020).

[55] AIM Act, section 103(e)(2)(D)

transition" to alternatives that was contemplated through enactment of the AIM Act given prior experience with the Title VI ODS transition.

In addition, EPA should also allocate multiyear allowances to avoid possible disruption to the HFC phasedown should EPA fail to allocate allowances by October of the prior year. Practically speaking, while subject to a statutory mandate to "determine the quantity of allowances for the production and consumption of regulated substances that may be used in the following calendar year"[56] it may be reasonable to assume that EPA may not always complete an annual rulemaking process on time. For example, while EPA is required to promulgate annual rules for the Renewable Fuel Standard ("RFS") pursuant to CAA section 211(o), these annual rules have been chronically late and, in some cases, issued well after the beginning of compliance years.[57] To guard against this possible outcome – and the resulting disruption to the U.S. market – EPA should promulgate rules well in advance that cover multiple years covering at least the time periods covered by the statutory phasedowns – 2020-2023, 2024-2028, 2029-2033 and 2034-2035. As noted above, EPA can both allocate allowances for multiple years and avoid unintended results based on the AIM Act's specification that allowances provide a "limited authorization" for the production and consumption of a regulated substance.[58]

D. EPA Should Allocate All Allowances at Company, Rather than Facility Level

EPA has historically apportioned baseline production and consumption allowances for class I and class II controlled substances at a company level. *See* 40 C.F.R. §§82.5, 82.17. There is nothing in the AIM Act which would support deviating from this past practice. Rather, as cited above, both the AIM Act as constructed (using parallel provisions to title VI of the CAA) and legislative history would dictate the conclusion that EPA follow a similar methodology of allowance allocations at the company level.

In addition, as a matter of overall policy, United States producers and importers require flexibility to address allowances from a corporate, rather than facility level. This becomes increasingly important as EPA implements the statutory phasedown provided by the AIM Act to realize lower levels of allowed production and consumption. Companies need the ability to efficiently plan for this transition by considering all manufacturing facilities and their relative capital needs over time.

Allocation of allowances at a facility level would also put an unnecessary additional burden on the process of allocation and transferring allowances among facilities that are operating within one corporate entity. It is likely that some consolidation of production will occur as production allowances are phased down since chemical plants cannot be run cost effectively at low capacity utilization given high fixed costs and other factors. Therefore, allocation at the facility level could result in the need for additional transfer of allowances

[56] AIM Act, section 103(e)(2)(D).

[57] For example, EPA did not promulgate RFS standards for 2014 and 2015 until December 2015 and, to date, has not proposed an RFS standard to cover the 2021 control period. To guard against this possible outcome – and resulting disruption to the U.S. market – EPA should promulgate rules well in advance that cover multiple years covering at least the time periods covered by the statutory phasedowns – 2020-2023, 2024-2028, 2029-2033 and 2034-2035.

[58] AIM Act, section 103(e)(2)(D)(ii).

between facilities, creating inefficiency and raising overall costs depending on the level of the required offset. It would also needlessly complicate and expand required reporting versus the time-proven company reporting process that has been effective during the phaseouts of class I and class II ODS.

Finally, over the 16-year phasedown schedule provided by the AIM Act, companies will need to adjust their internal allocation of allowances in order to meet market needs. In 2021, it is simply not possible to project with absolute accuracy what mix of products will be needed in 2030 or 2036. In any one year, the need for allowances also might shift if there is either a planned or unplanned production outage at a particular facility. Since EPA already receives facility-level information on production through requirements imposed by the GHGRP there is no programmatic need on the part of EPA for facility-level information on HFC-production under AIM Act regulations. Thus, EPA should implement a similar company-level allocation of allowances under the AIM Act as it has successfully used in the class I and class II ODS programs.

IV. EPA Should Require Allowances for Imported Products Containing HFCs

A. The Requirement for Consumption Allowances Should Not be Limited to Bulk Substances

EPA proposes to require allowances only for consumption of "bulk substances" and to exclude from the consumption baseline HFCs that are contained in a product.[59] EPA is also proposing to define "bulk" as "a regulated substance of any amount that is in a container for the transportation or storage of that substance such as cylinders, drums, ISO tanks and small cans."[60] Thus, HFCs that are imported into the United States in anything other than a bulk container as defined above would not require that an importer hold a contemporaneous consumption allowance.

This treatment of consumption allowances is in stark contrast to EPA's treatment of HFC production allowances whereby production effectively includes *all HFC produced* that is not destroyed except for the "inadvertent or coincidental creation of *insignificant quantities* of a regulated substance."[61] This means that HFC-containing products imported into the United States *won't require* allowances, but HFCs produced in the United States and then incorporated into U.S. products containing HFCs *will require* the expenditure of allowances. This is both illogical and inapposite to the AIM Act's explicit intent to promote domestic manufacturing. It creates an uneven playing field between U.S. produced and foreign produced products and actually serves to increase incentives for foreign production of HFC-based products. Further, allowing import of HFC-containing products with no regulatory limits or requirement of allowances could serve to undermine the phasedown goals by allowing imports of such goods to *increase* over the period of regulation unless specifically addressed by sector controls.

It also may be considered arbitrary and capricious for EPA to finalize such a disparate treatment of regulated substances given that EPA's rationale for its proposed regulations for

[59] 86 Fed. Reg. at 27,163; proposed 40 C.F.R. §84.5(b).
[60] Proposed 40 C.F.R. §84.3.
[61] *Id.*

consumption versus production allowances is sorely lacking. In justification of this differential treatment, EPA indicates that it does not have data on HFCs contained in products during the baseline period and that it would be "administratively infeasible" to collect the data now.[62] EPA also indicates that requiring a different mechanism for the HFC phasedown "could create confusion and would likely cause disruption within the imported products market."[63]

But EPA should have reasonably accessible data. EPA's GHG Inventory Report Section 4.24 shows for the years 2011-19 data in Table 4-103 for the category "HFCs in Products and Foams." It is not clear why such data would not be a sufficient basis for determining the overall amount of allowances and if there were issues concerning how individual companies were represented within the data, this could be addressed through requests and/or demands for additional information. In other words, just as EPA has requested data from other companies in order to implement provisions of the AIM Act, the Agency could request such data or even invite companies to supply such data during the course of this rulemaking.

With regard to the inclusion of CFCs and HCFCs within baseline calculations, companies could also provide information related to when their import activity started and whether they used CFCs or HCFCs in these imports.[64] In any event, in all likelihood, 1989 import activity in this category was likely extremely low since most import activity of foams and HVACR equipment started well after 1989. Specifically, 2011-2013 reported data concerning GHGs in the "HFCs in Products and Foams" comprised 5.3% of the "Reported Net Supply (GHGRP)" total. At a minimum, rather than provide a carte blanche exemption for HFCs contained in products, EPA should pursue realistic avenues to obtain the necessary information and require, as part of this rulemaking, future reporting and allowance holding requirements for importers of products containing HFCs.

There is also evidence that since 2011-2013 there has been an increasing trend to manufacture products containing HFCs outside the U.S. thus replacing what were once domestic sales and imports of bulk HFCs with products being manufactured outside the U.S. and then imported as products containing HFCs into the U.S. As noted above, GHG Inventory reporting data in Table 4-103 showed 5.3% of the 2011-2013 GHG Inventory in "HFCs in Products and

[62] 86 Fed. Reg. at 27,164. EPA's GHG Inventory Report Section 4.24 shows 2011-19 data in Table 4-103 for the category "HFCs in Products and Foams." It is unclear why EPA may consider this data to be insufficient as a basis for determining allowances. One possibility would be that the companies included in this category could provide general information related to when their import activity started and whether they used CFCs or HCFCs in these imports. Objectively, 1989 import activity in this category was likely extremely low since most import activity of foams and HVACR equipment started well after 1989. And in 2011-2013 reported GHG in the "HFCs in Products and Foams" comprised 5.3% of the "Reported Net Supply (GHGRP)" total. EPA should consider the feasibility of this type of approach on allocations.

[63] *Id.* at 27, 163.

[64] Since EPA has claimed it has insufficient information on 1989 activity to set a baseline, we suggest that EPA use the same CFC and HCFC factor derived from manufacturer and importer data to apply to the 2011-13 baseline for "HFCs in Products and Foam." Allowances for "HFCs in Products and Foam" could then be granted to parties that reported from 2011-19 using the same allowance scheme that will be used for manufacturers and importers.

Foams" with this figure nearly doubling to 9.8% of the 2017-2019 total. Without regulatory coverage, this documented, increasing trend in imports could very well continue or expand.

In this regard, incentives exist for certain Article 5 (developing countries) to do just that. Pursuant to the Kigali Amendment, Article V Group 1 countries are allowed their average HFC production for 2020 to 2022 and Article V Group 2 countries are allowed average 2024-2026 production, meaning that during the time period in which this final rule will be in effect, there is an incentive for some countries to "build their HFC baseline" from which phasedown requirements will later be imposed. EPA should not add to these existing incentives by allowing for the importation of such production without limitation based solely on the fact that such HFC production would be contained within products shipped to the United States versus bulk containers. Quite simply, the environment will not distinguish as between any eventual releases of HFCs that occur as a result of HFCs in bulk containers or end products.

B. EPA Can Obtain Data for Current Imports of Products Containing HFCs

EPA access and use of historical data for calculation of baselines and distribution of allowances may be distinguished from the requirement for possessing allowances to address consumption (import) of products containing HFCs. While as outlined above in Section III of these comments, the calculation of baselines is directed by statute, in terms of the latter requirement to hold allowances to "cover" HFCs contained in products, EPA need only have a reasonable basis to do so, whether or not the HFC contained in the product is used in a blend or not.[65] Under the AIM Act, "[n]o person shall . . . consume a quantity of a regulated substance without a corresponding quantity of consumption allowances."[66]

In terms of its legal authority to implement a requirement to hold allowances for HFCs contained in products, EPA may require such allowances in order to meet the phasedown schedules required in the AIM Act which EPA seeks to implement, in part, pursuant to its proposed regulatory language in §84.5(a). EPA has already proposed that "no person may import bulk regulated substances except . . . by expending, at the time of the import, consumption or application-specific allowances . . ."[67] Thus, the availability of historical data (EPA's rationale for not requiring consumption allowances be expended for HFCs contained in products) is not determinative of an ability to require allowances for HFCs contained within a product as reflected by EPA's own proposed regulatory language. Under EPA's proposed regulations, the prohibition is applied prospectively to importations of HFCs that occur during future control periods and this provision does not provide for an exception whereby a person unable to obtain consumption allowances is exempted from compliance. Therefore, EPA could easily amend the current proposed regulatory language in §84.5 to also limit importation of HFCs in products without expending an allowance:

> "(b) Effective January 1, 2022, (1) No person may import bulk regulated substances or regulated substances contained in manufactured products except: (i) By expending, at the time of import, consumption or application-specific

[65] Pursuant to AIM Act, section 103(c)(3), EPA retains authority to regulated an HFC within a blend, while it cannot designate a blend as a regulated substance.

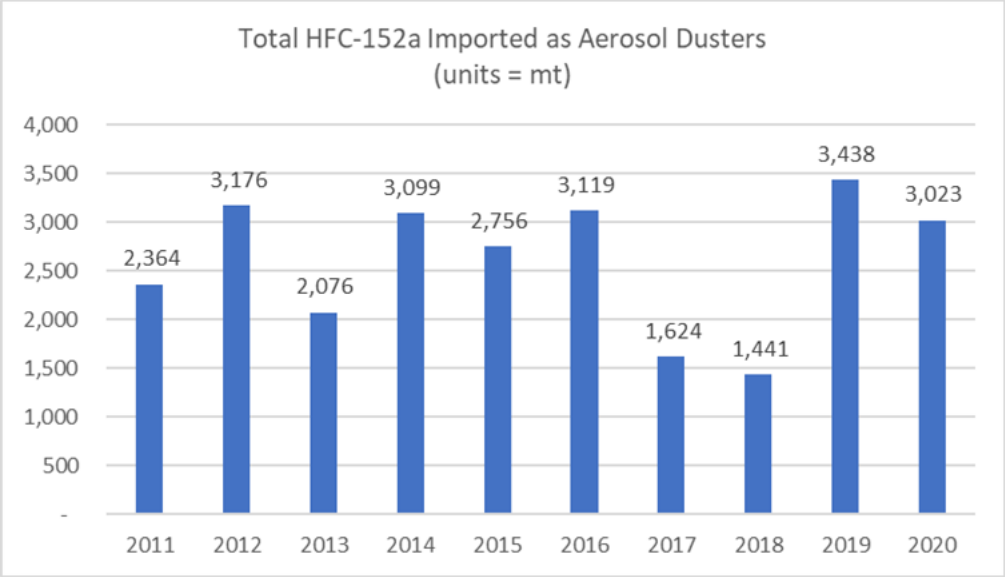
[66] AIM Act, section 103(e)(2)(ii).

[67] Proposed 40 C.F.R. §84.5(b).

> allowances in a quantity equal to the exchange-value weighted equivalent of the regulated substance imported."

In terms of EPA's ability to obtain necessary information to implement such a requirement, the AIM Act expressly cross-references EPA's authority to demand the provision of information pursuant to authority contained in Section 114 of the Clean Air Act. Thus, EPA has authority to both collect any information that may be needed to implement a prohibition on the importation of HFCs in products and authority to implement this requirement through regulation. Alternatively, EPA could consider implementing a requirement to hold consumption allowances for HFCs contained in products only for such products where reasonably available or reasonably obtainable data exist.

In this regard, one example of available data exists with regard to HFC-152a as contained in imported aerosol dusters. As indicated by the chart below, considerable historical data exists with regard to this product. While EPA may not be able to obtain or replicate data in similar details with respect to all products containing HFCs, it is certainly not the case that no data exists.



Source: The Descartes Systems Group, Inc. - Datamyne

Moreover, apart from available HFC data, should EPA find that 1989 CFC and HCFC baseline data on products obtained from a market query is insufficient to complete baseline calculations, EPA could consider using the same CFC and HCFC scaleup factors it will be applying for HFC producers and importers, subject to appeal if an individual party can produce documentation showing that they exceeded the regulatory baseline levels. In short, the fact that EPA may have to undertake additional efforts to regulate products containing HFCs or obtain the necessary data to do so, does not alleviate its statutory burden to do so. EPA must undertake reasonable efforts so that production and consumption activities are equivalently controlled and unregulated imports of HFC-containing products are not allowed to exist where HFCs are

simply introduced into products offshore in order to avoid requirements to hold allowances when they are imported into the U.S.

C. Precedent Exists to Require Allowances for Imported Products

EPA has previously banned importation of certain products containing Class II substances.[68] This action was taken to avoid additional skin cancer cases projected to occur if products (imported air conditioning units) containing HCFCs were allowed to be imported into the United States after the date on which manufacture of such products was banned in the United States.[69] While the legal authority for the "pre-charged rule" was determined to be Section 615 of the CAA (authority that is not applicable in the current rulemaking) prohibiting the importation of products containing HFCs without associated consumption allowances provides a similar benefit. It would both decrease overall consumption of HFCs in the United States (since all importation of HFCs would be covered under the cap on consumption allowances) as well as equalize rules for U.S. and foreign manufacturers.

To be clear, requiring allowances for products containing HFCs is not the exact equivalent to banning the sale of such products as was done in the "pre-charged rule." Rather, in the case of requiring allowances for HFCs in imported products, EPA would be implementing provisions of the AIM Act to reduce HFC production and consumption within the United States to specified phasedown limits (by accounting for all consumption of HFCs). Products containing HFCs could still be imported and sold, but they would be required to be "covered" by a consumption allowance.

The prior precedent regarding HCFCs, however, serves to demonstrate that EPA has the means to enforce a prohibition on importation of products. EPA's pre-charged rule regulations provided that "no person may sell or distribute, or offer to sell or distribute, in interstate commerce any product identified in [40 C.F.R. §82.306]. Those prohibited products were any pre-charged appliance or pre-charged appliance component "manufactured on or after January 1, 2010 containing HCFC-22, HCFC-142b or a blend containing one or both of these controlled substances."[70] EPA could enforce similar prohibitions on products containing HFCs based on its overall directive in the AIM Act to limit the percentage of consumption of regulated substances in any one year as compared to baseline calculations.[71] In other words, once EPA allocated allowances based on its baseline calculation for a specific year, additional imports not covered by consumption allowances would be prohibited since they would exceed the basis on which the overall cap on such allowances was calculated.

Requiring allowances for HFCs contained in imported products would also further environmental as well as economic goals of the AIM Act. EPA would be capturing all HFCs utilized in the United States and not disadvantage U.S. companies who would face competition from HFC product producers that may not be subject to any current phasedown requirements under the Kigali Amendment or differentiated prohibitions. Since China ratified Kigali on June 17 2021, its national commitments will be determined on the basis of being an Article 5 Group 1

[68] 74 Fed. Reg. 66,450 (Dec. 15, 2009).
[69] EPA estimated that approximately 1,700 total cases of cancer could be avoided. *Id.* at 66,455.
[70] 40 C.F.R. §§82.306(a), (b).
[71] AIM Act, section 103(e)(2)(C).

country, meaning that it will not be subject to the same requirements as those that apply to United States (Article 2) producers and importers. Article 5 Group 1 Kigali ratifiers, China and Mexico, will be allowed to "peak" production of HFCs in 2022 and be subject only to a "freeze" in baseline in 2024 with graduated step-downs leading to an 80% phasedown by 2045 as compared with a U.S. commitment to reduce HFC production and consumption upon ratification and achieve an 85% phasedown by 2036. Other countries within "Article V Group 2" such as HFC-producing India, should it ratify the Kigali Amendment, may peak production through 2024-2026 and be subject to even later freeze and phasedown requirements. Requiring allowances for the consumption of HFCs in products in the United States would not violate the Kigali Amendment, but at the same time, it would help avoid deleterious effects whereby actual use of HFCs in the United States could continue above Kigali and AIM Act limitations based solely on the fact that HFCs were contained in a product versus a bulk container.

It is well known that there are manufacturing lines in Mexico that produce products destined for the US market. If products containing HFCs do not require an allowance for import from Mexico, this could create an increasing trend to shift manufacturing to Mexico instead of keeping in it the U.S. While Mexico has already ratified Kigali, they are currently building their baseline and as noted above, are not subject to its first 10% step down until 2029. If products containing HFCs do not require consumption allowances for import, then it is reasonable to expect that we will see an increased trend of HFCs being imported within the products coming from Mexico to the detriment of U.S. producers and manufacturers.

V. Regardless of Allocation Methodology, EPA Must Address Market Share Gained Through Unfair Trade Practices

EPA has proposed that "any entity that is subject to a [Department of Commerce] Final determination and is requesting allowances for 2022 or 2023 must provide documentation of full payment of the [Administrative Determination/Countervailing Duty] for HFC imported in 2017 through the date of [the] proposed rule."[72] EPA is also proposing to not allocate allowances in 2022 or 2023 to companies that Customs and Border Protection ("CBP") determines are in arrears for penalty amounts and indicates that EPA may revoke or retire previously issued allowances on this basis, as well as take other actions with regard to future allocations.[73] Chemours supports these proposals but believes EPA must also account for any market share that was gained on the basis of such conduct during the years on which allowance allocations are based. Simply put, companies should not be permitted to benefit from this past behavior in terms of gaining allowance allocations, even while they may have satisfied penalties that were levied as a result of such past misconduct.

Several importers of HFCs produced in China have used unfair trade practices to penetrate the U.S. market since 2013. These importers and their affiliates initially imported the most commercially significant HFC products, HFC blends and R-134a, at unfairly low prices. When Commerce issued antidumping orders imposing corrective duties on the unfairly traded HFCs, various importers began circumventing the antidumping orders by importing "unfinished" HFC blends, blending in third countries, or importing unfairly traded HFC components (e.g., R-

[72] 86 Fed. Reg. at 27,186.
[73] *Id.*

32 and R-125) for blending in the United States. The market share seized by these unfairly traded imports was the direct result of a persistent pattern of dumping, circumvention, and evasion of U.S. law. As a result, the U.S. manufacturers of HFCs suffered declining sales attributable to this conduct up to and during the period of time EPA is proposing to use as a basis for allowance allocations. We are attaching a detailed accounting of these actions.[74]

Apart from this information, we would note that a 2016 International Trade Commission order determined that HFC blends produced in China and imported into the United States (R-404A, R-407C, R410A, R507A and R-507) were materially injuring an industry in the United States.[75] The Department of Commerce determined that HFC blends and components from the People's Republic of China "are being, or are likely to be, sold in the United States at less than fair value."[76] The period of investigation for this determination covered the time period from October 1, 2014 through March 31, 2015. Therefore, to the extent that EPA utilizes a longer time period for allowance allocations as Chemours advocates, these prior activities should be taken into account in reducing corresponding allowances to importers engaged in these activities.

The Department of Commerce has also determined that imports from China were circumventing the antidumping duty imposed on them through the 2016 order.[77] The Department of Commerce found that "[d]uring the period September 2016 through June 2019, monthly average exports of HFC components from China surged to 2,707,659 [kilograms ("Kg")]; an increase of 411.31 percent. Likewise, over the same time periods, the monthly average import quantity of HFC components from China in the U.S. increased from 599,758 Kg per month to 2,247,847 Kg per month; a 274.4 percent increase."[78] These increased imports of HFC components corresponded with a *decrease* of HFC blends, leading the Commerce Department to conclude that the HFC components were circumventing the 2016 Antidumping Order.[79] Therefore, there exists specific findings by the U.S. Department of Commerce of dumping and circumvention during the time period that EPA has proposed to utilize for allowance allocations. As per our initial comments above, EPA must account for all the effects of HFCs and HFC blends that are introduced into the United States in violation of applicable trade law. EPA's proposal to address allowance allocations for only those companies with unsatisfied or continuing violations is insufficient; EPA would be conveying valuable allowance allocations based on the violations which would, at a minimum, reduce the economic penalties imposed and potentially convey a new profit stream on the basis of prior, unlawful conduct.

In addition, EPA should take further notice of the various actions taken over the years to circumvent lawful orders and antidumping duties, including by importers that blend Chinese

[74] A Brief History of Unfairly Traded Imports of HFCs from China, Cassidy Levy Kent, LLP, July 6, 2021 Attachment 2.

[75] 81 Fed. Reg. at 55,437.

[76] 81 Fed. Reg. 5,098 (Feb. 1, 2016).

[77] 85 Fed. Reg. 20,248 (April 20, 2010).

[78] *Preliminary Decision Memorandum for Anti-Circumvention Inquiry of the Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China: HFC Components*, United States Department of Commerce, International Trade Commission, April 3, 2020 at 17.

[79] See *Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances;* 81 Fed. Reg. 42,314 (June 29, 2016) *(Final Determination); Hydrofluorocarbon Blends from the People's Republic of China: Antidumping Duty Order*, 81 Fed. Reg. 55, 436 (August 19, 2016).

HFC components, including R-125, R-32, R-134a and R-143a, in third counties and importers that bring "off-spec" blends into the United States where final blending is accomplished.[80] As provided in the AIM Act, an "allowance" is a "limited authorization for the production or consumption of a regulated substance."[81] As a "limited authorization" that does not constitute a "property right,"[82] EPA may properly take into account these prior actions and limit the allocation of allowances strictly to those United States producers and consumers who operated during the 2011-2013 baseline period or take other actions with respect to circumvention activities which would not effectively reward this behavior.

VI. EPA Should Not Finalize Proposed "Set-Aside" Allowance Allocation

A. A "Set-Aside" Pool is Not Authorized by the AIM Act and EPA Has Not Articulated a Supportable Rationale for Non-Mandatory Allowance Set-Asides

EPA has proposed to provide a "set aside" of production and consumption allowances that would operate apart from what the Agency terms the "general pool" of production and consumption allowances.[83] Consumption and production allowances from this pool are available to entities that qualify for application-specific allocations mandated by the AIM Act that have not been identified by EPA prior to October 1, 2021. Consumption allowances are further made available to persons who reported to the GHGRP in 2020 but were not required to report, as well as "persons who are newly entering the HFC import market" and meet other qualifications.[84]

EPA bases this latter proposal on several non-statutory considerations which also have no basis in the legislative history of the AIM Act. EPA claims it is allocating such allowances to provide "as seamless a transition as possible to a regime where allowances are needed to produce and import HFCs, promoting equity, timeliness of implementation and availability of robust data."[85] A seamless transition, however, would involve implementing the AIM Act in a similar fashion to Title VI of the Clean Air Act which provided allowances to prior producers and consumers. Moreover, a "seamless transition" has already been proposed based on utilizing recent years (2017-2019 or alternatively other years within the 2011-19 period) as the basis for allocation of allowances.

Second, as detailed above, EPA claims that it can deviate from past practice in allowance allocations and provide a set-aside pool of allowances based on the distinction between a "phaseout" under Title VI of the CAA and a "phasedown" under the AIM Act. But this distinction is sorely lacking in substance and, indeed, inaccurate in practice. While Title VI of the CAA provides for a general phaseout, the title also allows for exemptions from the phaseout.[86] Thus, it is simply incorrect to indicate that all Class I and Class II substances will be phased out under Title VI. This may be demonstrated by initially noting that in 2021, over 30

[80] *See* "HFC Coalition Applauds the United States Department of Commerce for Initiating Investigations into Unlawful Circumvention of U.S. Law by Imports of HFC Refrigerants from China," American HFC Coalition, June 24, 2019.

[81] Sec. 103(a)(2).

[82] *Id.* §103(e)(2)(D)(ii)(I)(aa).

[83] Proposed 40 C.F.R. §84.15.

[84] *Id.* §84.15(c).

[85] 86 Fed. Reg. at 27,169.

[86] See nt, 88-90 infra, referencing CAA title VI provisions and exemptions.

years after the enactment of Title VI, not all production or consumption of Class I and Class II substances is prohibited. For example, EPA has proposed to extend indefinitely the laboratory and analytical use exemption for Class I ODS.[87] Methyl bromide can be used for quarantine and pre-shipment uses[88] and critical use exemptions, subject to approval, can still be applied for.[89] Section 18 exemptions are available for imported products and domestic commodities growing in areas under quarantine for a regulated pest.[90]

Second, as pointed out above, the "phasedown" required by the AIM Act is subject to both potential acceleration (Section 103(f)) and full or partial restrictions in specific sectors or subsectors through rulemaking under Section 103(i). Implementation of these provisions has the potential to result in a phasedown of HFCs that exceeds the mandatory 85% level. In other words, the 85% phasedown is a floor and not necessarily a ceiling. Thus, it is not "appropriate"[91] , as EPA claims, to promulgate a new entrant set-aside on the basis of a claimed statutory distinction between Title VI and the AIM Act that does not exist and has little or no connection to the issue of what entities should be allocated allowances.

Finally, a proposal which would effectively transfer allowances to theoretical "new entrants" that would otherwise be allocated to producers and importers would unnecessarily complicate allowance distribution, particularly if EPA retained more allowances than needed for such supposed "new entrants". We would note that EPA has offered no technical analysis or support in the docket for either the proposed amount of the available set-aside or any presumed economic benefits projected to flow from the set-aside. And, to the extent a "set aside pool" would benefit new foreign producers by providing access to consumption allowances for new importers, such a result is directly contrary to the general purpose of the AIM Act to support domestic production.

B. The Proposed Allowance Allocations to New Entrants Is Contrary to Regulatory History of EPA Allowance Allocations Under Title VI

Prior to the enactment of the 1990 Clean Air Act Amendments, which incorporated Title VI addressing stratospheric ozone protection, EPA implemented the Montreal Protocol using the authority of CAA §157(b) of the CAA.[92] Under this authority, EPA created a system of production and consumption allowances and "apportioned allowances to producers and importers of controlled substances based on their 1986 levels of production and imports."[93] While EPA considered several options for allowance allocations pursuant to CAA §157, it settled on allocations to historical producers and importers explaining that:

[87] 85 Fed. Reg. 47,940 (Aug. 7, 2020).
[88] 68 Fed. Reg. 238 (January 2, 2003).
[89] 79 Fed. Reg. 32,728 (June 6, 2014).
[90] United States Department of Agriculture Treatment Manual, Second Edition, 2016 at 2-3-1.
[91] 86 Fed. At 27,176 ("[G]iven that the AIM Act outlines a phasedown, but not a phaseout, of HFC production . . . it may be appropriate to continue to facilitate participation by new market entrants in the HFC import business.")
[92] CAA §157 was repealed by the 1990 Clean Air Act Amendments. Similar, although not identical statutory language, was incorporated within CAA §615.
[93] 57 Fed. Reg. 33,756 (July 30, 1992).

> EPA has concluded that the allocated quota system is the appropriate method for implementing the Montreal Protocol for several reasons. One, by directly regulating the supply of CFCs and halons, the allocated quota system is a straightforward method of ensuring that the requirements of the Montreal Protocol are met. Two, it is clearly lawful, in contrast to the auction and regulatory fee systems which raise legal issues. Three, as a market-based approach, the allocated quota system is economically efficient. Four, it is relatively simple to administer, since the producers and importers subject to the allocated quotas are small in number."[94]

After the 1990 Clean Air Act Amendments were enacted, EPA promulgated regulations under this new authority to allocate Class I ODS allowances. Again, EPA allocated all allowances to historical producers and importers consistent with statutory provisions that defined the "baseline year" for Class I substances as being calendar year 1986.[95] EPA later observed that the Class I ODS allowance system "proved highly successful."[96] For the HCFC phaseout, EPA considered several options to allocate allowances, including a one-time allocation or allowing for a re-allocation of allowances on a "rolling basis." [97] While the EPA initially implemented the phaseout of HCFCs without allowances on a "worst-first basis" (*i.e*., phasing out specific HCFCs through regulatory deadlines without using allowances), the EPA later allocated allowances on the basis of *regulatory* baselines. Specifically, in the first HCFC allowance allocation rule, EPA allocated "100 percent of each company's historical consumption baseline for all Class II controlled substances."[98]

It is notable that in its 2003 HCFC allocation rule, EPA did provide allowance allocations for "new entrants" into the HCFC market.[99] But EPA proposed that new entrants would be small businesses that *began importing after the end of 1997 and before April 5, 1999*, the date of publication of the ANPRM [discussion allowance options]."[100] And for production allowances, EPA allocated allowances from baseline based on "the highest historical production for each company in the years 1994 through 1997. . . [plus] an additional pro-rata amount . . ."[101] Thus, it may be observed that <u>EPA's limited, prior implementation of "new entrant" allowance allocations was based on historical consumption not anticipated future consumption</u> and that the baseline period only extended up until the time that EPA solicited comment on an allowance allocation system. The situation regarding HCFCs can therefore be easily distinguished from the

[94] *Id.* at 30,579. See also 57 Fed. Reg. at 33,782 ("In today's rule, producers are receiving chemical-specific production allowances based on what they had reported as production in 1986, excluding any production that was used and consumed as a feedstock for another chemical." Producers and importers of these chemicals are receiving chemical-specific consumption allowances based on their reported production, imports and exports of these chemicals.")

[95] CAA §601(2).

[96] *See* 64 Fed. Reg. at 16,375 (Apr. 5, 1999).

[97] *Id*. at 16,337.

[98] 68 Fed. Reg. at 2,824 (Jan. 21, 2003).

[99] *Id.*

[100] *Id*. at 2,823 (emphasis added).

[101] Id. at 2,824.

AIM Act, under which production and consumption baselines for HFCs are explicitly defined and are fixed in time.[102]

In sum, in the 30-year history of ODS allowance allocations, EPA has overwhelmingly allocated allowances only to historical producers and importers of Class I and Class II substances. And, in the single case, where "new entrants" were defined, they were defined in terms of e*xisting* entities, with prior production and importation activities, not new theoretical entities who have not previously participated in the market for controlled/regulated substances.[103]

C. Should EPA Finalize a Set-Aside Pool, It Must Be Limited in Scope and Duration

As indicated above, a set-side allowance pool is without support in the statutory provisions of the AIM Act. In addition, a set-aside pool that would benefit new imports of HFCs into the United States from foreign producers is contrary to the intent of the AIM Act to support U.S. manufacturing and innovation. As described by the Chairman of the House of Representatives cCommittee of Jurisdiction over the AIM Act:

> [The AIM Act] will benefit our economy, maintain American manufacturing leadership, create jobs, and protect the environment . . . The bill will help the United States maintain its position as a leader in the chemical, appliance, and equipment industries. It will also allow us to continue as a leader in innovation and on global environmental issues.
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> * * *
>
> The European Union and other nations, like Japan, Canada and China, are already transitioning away from HFCs. This legislation will provide the certainty and stability American companies need to do the same. Not only will it help these companies remain competitive in the global market for air conditioning, heating and other consumer products, but it will also help them increase their share of the global market and it has the potential of creating tens of thousands of high quality American jobs. [104]

Therefore, a regulatory provision which explicitly conveys consumption allowances to *future importers* of HFCs is directly contrary to the expressed intent that the AIM Act promote American jobs and manufacturing. In effect, EPA's proposed set-aside would serve to both encourage and subsidize foreign HFC production. In the proposed rule and the docket for this rulemaking, EPA has identified no statutory purpose supporting such an allocation, nor has EPA cited any indication of Congress' intent that the AIM Act was designed to promote foreign

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[102] *See* AIM Act section 103(e)(1).

[103] EPA has proposed to restrict such entities to those that are not "companies that are a subsidiary of, or have any common ownership stake with, another allowance holder." Proposed §84.15(f)(2).

[104] Promoting American Innovation and Jobs: Legislation to Phase Down Hydrofluorocarbons, House Energy and Commerce Committee, Subcommittee on Environment and Climate Change, January 14, 2020, Hearing Transcript at 11-12, accessed at https://docs.house.gov/meetings/IF/IF18/20200114/110388/HHRG-116-IF18-Transcript-20200114.pdf. Opening remarks of House Energy and Commerce Committee Chairman Frank Pallone.

production of HFCs and importation of these substances into the United States. To the contrary, any expression of Congressional intent in this matter is directly opposite.

Should the EPA continue to claim that it has discretion to promulgate a new entrant set-aside pool (which, at a minimum, is contradicted by the record of the consideration of the AIM Act) the Agency must take steps to narrow the scope of the proposed pool. Specifically, any set-aside pool apart from the allocation of allowances based on historic production and importation should be limited to a total amount of no more than 5 MMTCO2e as a one-time allocation. Failing this, any set-aside pool should be proportionately phased-down on the same schedule as provided in Section 103(e)(2)(C) of the AIM Act, *e.g*., no more than 60 percent of the initial allocation starting in 2024, no more than 30 percent, starting in 2029. To be clear, such provisions would not alleviate the statutory infirmity of EPA's proposed regulations, but they would serve to mitigate longer term damage to existing U.S. manufacturers and importers.[105]

In addition, any allowances from the set-aside pool should also not be provided to existing suppliers and reclaimers. EPA's proposed regulatory language at 40 C.F.R. §84.15(c)(2) is unclear on this point. Allowances are made available to "persons who are newly entering the HFC import market, do not share corporate ownership or familial relations with entities in the HFC import market, and meet Small Business Administration conditions for a small business in 13 CFR part 121." It is well documented from EPA data that many reclaimers currently import HFCs from foreign sources and thus, under the proposed rule, may qualify for consumption allowances. Such entities should not be allowed to qualify for any additional allowances that might be provided through a new entrant set-aside pool.

In addition, should a reclaimer be able to qualify for allowances from a set-aside pool, then it would be reasonable to restrict the use of such allowances to their claimed line of business. That is, reclaimers need for access to virgin HFCs has been understood to be for the purpose of meeting product specification, *e.g.*, to "blend up" reclaimed material to meet necessary standards (AHRI 700). Should access be provided to set-aside allowances, EPA should ensure that any allowances allocated are actually used for reclamation activities and meeting the AHRI 700 standard. This should also be the collective extent of any allocation to this market segment that is granted.

Finally, if any initial "new entrant" leaves the HFC market, any allowances previously set-aside should be returned back to the general pool for distribution to other producers and importers. Again, the principle applied should be that set aside allowances only be allocated on the basis of the need to support domestic production.

VII. EPA Should Follow Precedent Regarding Required Transfer Offsets and Use 0.1% to 1.0% Offset Ratio

[105] Chemours is aware that EPA has only proposed set-aside amounts for 2022-2023. Proposed 40 C.F.R. §84.15. But EPA is also taking comment in this rule regarding allowance allocation protocols for years after 2023. Thus, to the extent that EPA considers this matter in connection with comments on 2024 and succeeding year allowances, EPA should refrain from extending a set-aside pool of allowances in those years, or in the alternative, proportionately reduce any pool established for 2022-2023.

EPA recognizes that there are "similarities in the text, structure, and function of the production and consumption phasedown provisions of the AIM Act and EPA's program phasing out ozone-depleting substances (ODS) under Title VI of the CAA."[106] EPA should therefore utilize prior regulatory offset for transfers involving ODS which used 0.1% offset with regard to the transfer of HFCs (regulated substances) within the AIM Act. At most, EPA should utilize no more than a 1% offset for transfers. Both the statutory structure of the AIM Act and the requirement for a trading system limit EPA's discretion to impose higher levels of offsets.

EPA's proposal to consider offsets of 5% (or consider even higher offsets in future rulemakings) lacks a statutory basis as a method to achieve broad environmental results. The AIM Act provides specific mechanisms to achieve further reductions in HFCs through either acceleration of the general phasedown (Sec. 103(f)) or through technical transitions (Sec. 103(i)). EPA exceeds its statutory authority in the AIM Act by seeking what amounts to hefty "transfer taxes" that would inhibit transfer of HFC allowances, reduce market supply and increase costs. Further, this transfer tax mechanism as proposed *would not be applicable to foreign producers*, making large offsets directly contrary to the intent of the AIM Act in terms of domestic production and jobs.

EPA can point to no legislative provision or Congressional intent which supports the imposition of high emission offsets. To the contrary, Congress specified an "allowance allocation and trading program" be utilized in the phasedown of production and consumption allowances.[107] Final rules for transfers are to result "in greater total reductions in the production of regulated substances" than would occur in the absence of a trade[108] but EPA is also directed under this same authority to "*permit 2 or more persons to transfer production allowances.*"[109] This permission is conditioned on the requirement that a "transferor . . . will be subject . . . to an enforceable and quantifiable reduction . . . [that would not have occurred in the absence of the transaction."[110] But there is no basis on the face of this language to infer unrestrained or unreasonable authority to impose high emission offsets. Doing so, overly emphasizes the requirement for net reductions in HFC emissions over the requirement that EPA permit the transfer of allowances and implement an "allowance allocation and trading program."[111]

Imposing high emission offsets as a condition for trading would also produce other negative impacts on domestic producers. Over the course of implementing a phasedown in HFC production, domestic producers will need to rationalize domestic production capacity. Chemical plants inherently do not run efficiently at low-capacity utilization (*e.g.*, all parties running at 30% of capacity creates high unit fixed costs relative to the amount of product produced). The ability to transfer allowances as between domestic producers so that some plants may run at higher capacity is essential to economic production of regulated substances. Transfers might also occur in response to unplanned production outages. A high emission offset under these circumstances would only further worsen a strained supply situation.

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[106] 86 Fed. Reg. at 27,154.
[107] AIM Act, section 103(e)(3).
[108] *Id*., section 103(g)(2).
[109] *Id*. (emphasis added)
[110] *Id*.
[111] *Id*., section 103(e)(3).

With regard to transfers as between different producers, high emission offsets also would greatly complicate negotiations to transfer allowances (which may or may not, depending on EPA actions with regard to other elements of the proposed rule, be good for only one year). As demand shifts from legacy HFCs to lower GWP alternatives, the explicit intent and design of the AIM Act, companies developing and commercializing the alternatives will need access to allowances from allowance-holding parties. Promulgating regulations that would impose arbitrarily higher offsets for such transfers (which will be transferring reduced quantities of legacy, high GWP HFCs) will unnecessarily constrain such economic activity and impede the transition to lower GWP (*i.e*., lower EVe) alternatives. This is inapposite the intent of the AIM Act to facilitate such transitions.

VIII. EPA Should Only Ban Imports of Filled, Non-Refillable Containers

Chemours supports EPA efforts to stop illegal imports. Obviously, this effort can help facilitate the transition to lower-GWP alternatives and help protect domestic producers from the adverse financial impact of illegal imports. However, Chemours does not support the proposed requirement to mandate the universal use of refillable containers.[112] Instead, Chemours would propose that EPA ban all imports of *filled* non-refillable cylinders along with imposing a requirement for expanded record keeping at all U.S. packaging facilities. This would provide an alternative and more effective means to restrict/prevent illegal imports.

A. Costs Involved with Establishing a Returnable Cylinder Supply Chain and Associated Tracking System Are Excessive and Benefits May Be Negligible or Negative

1. Costs for Refillable Cylinders Are Excessive and understated in the EPA Review

The requirement to replace all disposable cylinders with refillable cylinders will require producers to incur significant costs (upwards of $90 million per company in some cases) to obtain the necessary number of cylinders to fulfill anticipated market demand. Furthermore, the physical production of the number of refillable cylinders that would be required (an estimated 7 to 10 million cylinders, far more than EPA's estimated requirement) is not feasible by the proposed deadline of January 1, 2023, when requirements regarding disposable cylinders would become effective. The July 1, 2023, timetable for full market conversion to returnable cylinders is woefully short based on long lead times needed for cylinders and valves and would also result in added cost and logistics for adding trips due to higher tare weights, return trips to filling facilities and additional stock of empty cylinders to account for possible slow returns of used, refillable cylinders. Adding to the burden of the proposed timetable is that shortly after incurring the costs of building the cylinder fleet, a major stepdown in allowances will occur, obsoleting a significant portion of the newly purchased cylinder fleet. As noted by a cylinder manufacturer during EPA's public hearing on the proposed rule:

> The proposed ban is intended to shift the market away from non-refillable cylinders, which the EPA significantly underestimates at only about four million

[112] Proposed 40 C.F.R. 84.5(i)

> units per year. In fact, the ITC found that imports from China alone were 3.6 million units in 2019, which represents a relatively small portion of the market. As a manufacturer of both non-refillable and refillable cylinders, we can state with confidence that domestic producers cannot possibly meet the sudden and staggering demand for refillable cylinders that this ban would create. A refillable fleet would require up to five times as many cylinders to service the same demand. Thus, the domestic market for cylinders currently supplied by American manufacturers will shift right back to foreign manufacturers producing refillable cylinders with no meaningful environmental oversight.
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> Shipping heavier refillable containers from overseas will increase the greenhouse gas footprint of these products and create the very same HFC smuggling opportunities the cylinder ban was proposed to address. In 2020, Worthington filed a successful antidumping case against nonrefillable cylinder imports from China, and the Commerce Department recently imposed duties of 82 to 288 percent on these imports.[113]

Any supposed "cost-effective" environmental benefit in moving from disposable to refillable cylinders is also questionable. This issue was analyzed in a study commissioned by the California Air Resources Board.[114] As compared with other measures, including foam recovery from household refrigerators/freezers, refrigerant recovery and reclamation and recovery and reclamation from fire extinguishers, emissions reductions from banning the use of disposable 30 lb. refrigerant cylinders was relatively small and came at costs an order of magnitude higher than other options.[115] According to this analysis:

> By banning disposable (non-refillable) cylinders [in California], an estimated 0.7 MMTCO2eq can be avoided by 2050, though at significant cost (i.e., net present value (NPV) cost of $254/MTCO2eq for HFCs through 2050, assuming a 5% discount rate).[116]

EPA's review of this issue contained in an analysis submitted to the docket[117] is incomplete and does not consider the full lifecycle analysis of the refillable cylinder supply chain nor does it compare this supply chain with that of non-refillable cylinders. This is a major flaw in EPA's analysis. The EPA study does not include full impact of initial refillable cylinder investment, investment at loading facilities, refillable cylinder refurbishment, valve cost or weight, seasonality of business, environmental impact of heavier cylinders, ergonomic impacts, reverse logistics, lower net product weight with refillables, or cylinder recycling. Specifically:

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[113] Testimony of Wayne Powers, Director of Refrigerant, Foam and Adhesive, Worthington Industries, June 3, 2021.

[114] Lifecycle Analysis of High-Global Warming Potential Greenhouse Gas Destruction, Contract Number 070330, October 2011.

[115] *Id*. at xiv, Table 1.

[116] *Id*. at xv.

[117] Refillable and Non-Refillable Cylinders: Analysis of Use, Emissions, Disposal, and Distribution of Refrigerants, Stratospheric Protection Division, April, 20460, EPA-HQ-OAR-0044-0046.

- EPA assumes that a small refillable cylinder costs about $36.[118] But small refillable cylinders in Canada cost $60 each plus $15 to $20 for the valve, making total cost 6-7X the cost of the $12 non-refillable cylinder cited in the docket post. This means EPA underestimated total purchase costs per cylinder and valve by about 2x.

- EPA also underestimated the number of non-refillable cylinders used annually in the United States. Annual non-refillable cylinder use for stationary and mobile aftermarket refrigerants is in the range of 6 million units as referenced by the State of California's 2007 market study, not the 4.5 million assumed in the docket post. Chemours experience with small refillable cylinders in Canada shows that the refillable cylinder fleet size needs to be 5X the annual non-refillable cylinder use due to slow turn rates (only 1x/yr, not the 1.5X/yr in the docket post) and empty cylinder return logistics (empty cylinders returned in batches, not individually). Based on these estimates, total US small refillable cylinder fleet requirements could approach 30 million units. Factoring in a much larger fleet and twice the assumed cost per unit means that EPA's cost estimates are off by several orders of magnitude. An added consideration is that almost as soon as the investment has been made to establish this fleet, 2024 and 2029 step downs in HFC allowances will occur, possibly obsoleting a large portion of the fleet, depending on yet undetermined market choices of low GWP replacements.

- Higher tare weights for refillable cylinders (21 lbs per ICF study) versus non-refillables (6-7 lbs including carton) may create ergonomic issues for service technicians and others handling cylinders in the supply chain. A possible adaptation would be to reduce net refrigerant fill weights, which would lead to even higher fleet size and associated costs (cylinders, valves, outbound and return freight, etc.)

- The California report cited above also concluded in 2011 that there would be a significantly higher cost for the refillable supply chain, an estimated $50 million through 2050 in California alone. Because California GDP is approximately 15% of total U.S. GDP (Bureau of Economic Analysis 2019), extrapolating these estimates nationwide would mean a $340 million higher cost for a refillable cylinder system nationwide during the same time period as measured in 2011 dollars.

- Beyond costs to create the refillable cylinder fleet, additional costs should be expected for modification of automated packaging lines to fill small refillable cylinders instead of the current non-refillable packages. The larger footprint of small refillable cylinders versus current non-refillables might also create additional costs down the value chain for conversion of automotive service machines and contractor service van transport racks.

Again, Chemours shares EPA's goal to prevent illegal imports of HFCs. But more realistic cost estimates combined with the fact that much larger quantities of refillable cylinders will be needed almost immediately – and then potentially *not needed* as the HFCs are phased down in 2024 and 2029 leaving costly stranded assets given that cylinder useful life is approximately

[118] *Id*. at 16.

20 years – heavily weighs against adoption of EPA's proposed requirement for refillable cylinders.

2. EPA Has Overestimated Emission Reductions Associated with "Heels" Contained in Non-refillable Cylinders

EPA's assertion that the residual amount of HFC (heel) that remains in disposable cylinders "can measure up to eight percent of the quantity that was originally stored in the container"[119] appears likely to be related to heels of a 25-lb HFC-410A Non-Refillable cylinder that would remain if the contents were pulled down only to vapor pressure at 77F when the last drop of liquid was removed. In this case, an estimated 7.6% of HFC-410A contents would remain as vapor if the cylinder was disposed with no further removal of contents. However, a more likely scenario would be for a service technician to stop use when vapor pressure reaches suction pressure on the air conditioning equipment being serviced, leaving an estimated 4.4% of contents as vapor.

Similarly, HFC-134a Non-Refillable cylinders when "liquid empty" at 77 F would leave 3.1% of contents remaining as vapor. If a service technician stopped when vapor pressure equaled suction pressure on a medium temperature refrigeration unit, an estimated 1.0% of contents would remain. However, HFC-134a non-refillable cylinders used in automotive air conditioning service are used with service machines that pull the cylinder down to 15" Hg, leaving only 0.2% of contents as vapor. Thus, EPA cannot generalize from these results that prohibiting the use of non-refillable cylinders "would increase environmental benefit by ensuring the heels left in a cylinder are not released to the atmosphere when disposable cylinders are discarded."[120] Chemours also notes that the docket post estimates on average cylinder heel weights cited only a Stratus study that referred only to stationary aftermarket cylinders, omitting consideration of the much lower heels that would be expected from 134a cylinders used in automotive service machines.

Chemours Canada's experience with small refillable cylinders indicate that there are also heel losses which occur for these containers due to product contamination during cylinder conversions between products, during valve replacement and cylinder preparation for hydrotesting. Considering the possible actions to reduce heel losses in non-refillable cylinders and some heel losses occurring in refillable cylinders, Chemours believes that EPA's estimate that replacing disposable cylinders with refillable cylinders would prevent the release of 5.2 MMTCO2e of HFCs each year is likely excessive.[121]

B. Alternative Mechanisms Are Available To Support Enforcement Goals and Prevent Illegal Imports

Instead of pursuing its proposed regulatory pathway, Chemours suggests that EPA implement an alternative approach whereby refillable cylinders would be required *only for imports* as a means of controlling illegal imports. Imposing refillable cylinder requirements for

[119] 86 Fed. Reg. at 27,187.

[120] *Id*.

[121] EPA's estimates may be found in the docket at "Refillable and Non-Refillable Cylinders: Analysis of Use, Emissions, Disposal, and Distribution of Refrigerants." *See* EPA-HQ-OAR-2021-0044-0046.

imports will assist in enforcement efforts by requiring a more substantial infrastructure for imports, with an associated financial investment, lessening the potential for fraud. Given the extensive reporting required for domestic producers, a parallel system is not required as a "physical" anti-fraud system for regulated substances produced in the United States. Rather, EPA can rely on reporting and other tracking systems that are extensive but inherently less expensive, backed up by the threat of enforcement for misreporting such activities.

Banning import of non-refillable cylinders containing HFCs would accomplish the same goal as EPA's proposal to switch to a "returnables only" market since it would not be economically viable to ship empty returnable cylinders back to parties outside the U.S. In addition, anti-dumping actions already taken regarding HFC blends (*e.g.*, 410A, 404A) have already largely moved the U.S. market away from importing non-refillable cylinders containing HFC blends in favor of importing bulk components and blending/packaging in the U.S. market. The only major product that would be impacted by a ban on importing non-refillable cylinders containing HFCs would be HFC-134a and a measure to require domestic filling of packages would not impose an undue burden on the market since domestic HFC packaging capability already exists. EPA should also consider requiring packaging of neat HFCs and HFC blends at EPA-approved packaging facilities with record keeping requirements and audits in place, even if EPA opts to forego a ban on import of filled non-refillable cylinders.

An additional alternative to requiring that refillable cylinders be utilized in all cases would be for EPA to allow continued use of US-filled non-refillable cylinders but require that all used non-refillable cylinders be returned to a local refrigerant distributor or reclaimer for recovery of refrigerant and preparation for cylinder recycle in accordance with AHRI Guideline Q "Guideline for Content Recovery & Proper Recycling of Refrigerant Cylinders." DOT-39 non-refillable cylinders should not end up in landfills, but rather be recycled locally. The recovered HFCs could then be directed to EPA-certified reclaimers. Contractors could add a refrigerant recovery fee to their invoices (similar to current "tire disposal fees" charged in the automotive service market). EPA projections of the amount of emissions from cylinders assumes that improper disposal of non-refillable cylinders is occurring. Thus, imposing this alternative requirement would provide a dual benefit: it would provide greater control of emissions by specifying where and how non-refillable cylinders must be processed prior to recycle and it also supports reclaimers by giving them a source of virgin HFCs that have already been "covered" by production and consumption allowances. This could be done without market distortion that might occur should EPA determine to otherwise allocate either general or new entrant pool allowances to reclaimers.

In addition, EPA should also consider the following alternatives in lieu of the proposed ban on non-refillable cylinders in order to stop illegal imports:

- Institute an EPA-certified HFC packaging facility requirement (similar to the requirements for EPA-certified reclamation facilities) with the HFC packaging facilities subject to recordkeeping, reporting and audit requirements related to their handling of regulated substances including the allowance holders whose material is being packaged and their packaged quantity including handling and filling losses. This would provide a

far more traceable path for regulated substances than the proposed end to end package tracking requirement.

- Require all allowance holders who service the refrigerant aftermarkets to implement an authentication program for cylinders filled at the EPA-certified packaging facilities for placement into the market. This could be accomplished through a system similar to Chemours' IZON authentication program. The authentication feature would allow end-users and auditors to quickly check the validity of a cylinder in the field.

- Require pre-authorization of imports (primarily ISO containers).

- Require all HFC imports to use proper HTS codes. Coding system needs to be updated such that each HFC component and HFC-containing blend composition has a unique HTS code.

- Require that all imports be clearly identified on Customs' records as to the importing parent company (no "unassigned" or "blank" imports appearing on import subscription services) so the industry can self-monitor HFC activity.

- Require Certificate of Analysis (COA) on each ISO container entering the U.S. CBP should spot sample and test contents to ensure importers don't claim to be importing one product when it's actually importing another, higher GWP product.

- Require all imports of a regulated materials (e.g. virgin, used, recovered, recycled, reclaimed) to expend consumption allowances.

- Consider implementing a deposit on disposable cylinders to encourage proper evacuation and return for refrigerant reclamation and proper cylinder recycling. Contractors could add a cylinder disposal fee to invoices to cover the cost of proper processing of used non-refillable cylinders.
- Implement an EPA hotline and on-line portal for reporting of suspected illegal activity similar to "Operation Catch-22". Consider rewards for those who report (where illegal activity is found).

- Be very public in trade magazines, etc. regarding the existence of reporting hotlines and the potential for civil and criminal sanctions.

C. EPA's Proposed Certification ID Tracking System Using QR Codes (or Similar Digital Technology) to Track HFCs is Not Feasible.

Chemours supports EPA's general premise that in order to ensure that HFCs introduced into commerce in the United States are "legal" they need to be covered by an allowance or are the result of U.S. refrigerant reclamation. The proposed mechanism to track HFCs, however, essentially represents a theoretical concept and is not accompanied by a proven digital solution capable of accurately achieving EPA's objective.

EPA has proposed to track cylinders and product through the end-to-end supply chain using EPA certification system for QR codes for each container. But it is impossible to track each cylinder contents through full supply change through QR codes or other means. For domestic production, production is co-mingled in storage tanks, making it impossible to link a source container to finished product container. Import shipments are also co-mingled in storage tanks so they cannot be linked to a specific finished product container. Further, products like HFC-410A, HFC-404A, HFC-507, etc. are blends which are produced by further co-mingling two or more regulated HFCs, making the end-to-end product tracking even more cumbersome. EPA's proposed rules are also overly complex and not value-adding. They would also do little to restrict or limit illegal imports. Illegal imports need to be stopped before entering the US; tracking within the country would not necessarily identify or stop illegal imports.

Chemours would instead recommend using quality batch management practices to verify authenticity. EPA could simplify its tracking requirements and achieve the same objective. Rather than tracking the movements of cylinders through the supply chain, EPA could require authenticating cylinders filled in the U.S., using a unique identifier on each cylinder such as an IZON label with a QR code. The cylinder could then be authenticated at any point in the supply chain by verifying the code through the supplier system or even through uploading the authentic codes to the EPA system. Using this ability to "spot check" cylinders, EPA could therefore avert the need for additional tracking through each step in the supply chain, a system that would add additional costs and complexity, without providing additional benefits against illegal imports.

As an additional measure to better track regulated HFCs, we suggest mandating use of an EPA-certified HFC packaging facility (similar to the requirements for EPA-certified reclamation facilities) with the HFC packaging facilities subject to recordkeeping, reporting and audit requirements related to their handling of regulated substances including the allowance holders whose material is being packaged and their packaged quantity including handling and filling losses. This would provide points of concentration for HFC packaging, making the desired mass balance for each allowance holder versus their allowances far easier to manage than an end-to-end product tracking system.

IX. EPA Must Clarify Provisions Addressing HFC-23

A. Chemours Supports Ratification of the Kigali Amendment and Related Actions to Phasedown the Use of HFCs and Address Climate Change

Chemours has long supported U.S. ratification of the Kigali Amendment and adherence to the Paris Climate Agreement. During Congressional consideration of the AIM Act, Chemours signaled its support of this measure and the legislation's overall objective of reducing GHG-weighted emissions of HFCs by 85%. This support was consistent with other actions Chemours has taken to address climate change. For example, on September 13, 2018, Chemours initiated 10 corporate responsibility commitment goals that include at least a 99% reduction in fluorinated organic emissions by 2030.[122] In addition, as part of the 2018 Chemours Global Reporting Initiative Report, we communicated that we plan to reduce HFC-23 emissions by 99% by

[122] The Chemours Company - Chemours Announces Corporate Responsibility Commitments Tied to Its Growth Strategy).

2024.[123] Most recently, Chemours announced that it will improve upon its previous 2030 climate goal by adopting an aggressive 60% *absolute reduction* of operations-related greenhouse gas emissions by that date.[124]

Consequently, Chemours has taken multiple actions to control emissions of HFC-23. First, Chemours instituted measures to minimize the incidental production of HFC-23 during HCFC-22 production at its manufacturing facility, and to capture the majority of HFC-23 produced. These include control of the HCFC-22 manufacturing chemistry to limit HFC-23 production yield to less than 1.1%, and to capture the majority of the HFC-23 produced (process and equipment limitations preclude complete capture). Second, with respect to this production, Chemours is developing new process technology and designing a new production configuration to improve HFC-23 capture efficiency to over 99%, store this regulated substance and then ship it for highly efficient destruction of over 99.99%. As publicly announced,[125] this project includes the "design, custom-build and installation of proprietary technology" and has been expedited to be completed by the end of 2022, which would also coincide with the first full year in which the AIM Act is being implemented.

B. EPA Provisions Addressing HFC-23 Must Be Consistent with AIM Act Provisions Addressing All HFCs

EPA has proposed several measures that could affect the production of HFC-23 as well as HFC-23 emissions. First, EPA is proposing that "creation of a regulated substance beyond insignificant quantities inadvertently or coincidentally created in three specific circumstances would be considered 'production.'"[126] EPA has also "outlined" a "general approach particular to HFC-23" involving the capture and control of HFC-23 to a specific standard.[127] Finally, EPA has indicated in preamble language (unaccompanied by proposed regulatory text) that use of HFC-23 allowances may be restricted in a manner that is not applied to other regulated HFCs. As explained in more detail below, EPA should clarify both preamble and regulatory language affecting HFC-23 to be consistent with the AIM Act and policy objectives regarding its implementation.

While the Administration has indicated that it will submit the Kigali Amendment for the advice and consent of the U.S. Senate, an action which Chemours also supports, EPA's proposed rule relies solely on the authority conveyed to the Agency by the AIM Act. In this regard, the AIM Act is a free-standing legislative enactment which neither amends the Clean Air Act[128] nor

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[123] *See* at page 27: https://www.chemours.com/en/-/media/files/corporate/crc/2018/chemours-2018-global-reporting-initiative-index.pdf?rev=9dd769f57f2b45b180c26bce04b32af4).

[124] Chemours Announces Ambitious Net Zero Greenhouse Gas Emissions Goal, April 15, 2021, accessed at https://www.chemours.com/en/news-media-center/all-news/press-releases/2021/chemours-announces-ambitious-net-zero-greenhouse-gas-emissions-goal.

[125] Chemours Announces Project to Reduce HFC-23 Emissions, March 8, 2021, accessed at https://www.chemours.com/en/news-media-center/all-news/press-releases/2021/chemours-announces-project-to-reduce-hfc-23-emissions.

[126] 86 Fed. Reg. at 27,178.

[127] *Id.*

[128] Section 103(k) of the AIM Act provides, instead, that certain procedural, information and enforcement sections of the Clean Air Act shall apply to rulemaking under the AIM Act, not substantive provisions of the Clean Air Act that impose standards and limitations.

any other pre-existing statute. Thus, given the stand-alone nature of the authority that EPA relies on for this proposed rule, clarity is needed with regard to how new control requirements will apply to HFCs. This extends to EPA's proposed regulations that affect HFC-23 production and use, where EPA must ensure comparable treatment of HFC-23 to provisions of the AIM Act affecting other "regulated substances."

In this regard, EPA has indicated that production of HFC-23 will "*generally require* the expenditure of production and consumption allowances unless the regulated substance is timely destroyed."[129] EPA also is proposing to exercise "*significant discretion*" to "only allow production and consumption allowances to be expended for HFC-23 if the HFC-23 is refined and sold for consumptive uses."[130] Additionally, EPA proposes to impose an emission limit beginning from October 1, 2022 (at the earliest) to October 1, 2023 (at the latest) which would apply to HFC-23, limiting emissions resulting from production to "0.1 kg of HFC-23 per 100 kg of HCFC-22 created on the line . . ."[131]

Since the requirement to hold unexpended production allowances that are needed to "cover" production of regulated substances is imposed beginning on January 1, 2022,[132] EPA needs, at a minimum, to clarify the proposed rule's provisions that will apply in the interim period between this date and the time period allowed for the installation, testing and verification of HFC-23 control and destruction equipment (*i.e.*, October 1, 2022 to potentially October 1, 2023). Specifically, EPA needs to ensure that there will not be disparate treatment of one regulated substance (HFC-23) versus other regulated substances during such period.

As noted above, EPA appears to have asserted some leeway to accomplish this goal. The Agency stated that requirements related to HFC-23 will only apply "generally" based on discretion, rather than being dictated by any specific provision of the AIM Act. But at the same time EPA must ensure that regulatory provisions specific to HFC-23 do not conflict with applicable definitions contained in the AIM Act nor provisions that apply to HFC-23 and all other "regulated substances."[133] This would especially hold true during the period of time prior to the imposition of unique emission limitations on HFC-23.

In this respect, EPA acknowledges that during this interim period "some facilities [that produce HCFC-22 and HFC-23] may need to install and calibrate new equipment in order to meet [the destruction standard]."[134] Therefore, having recognized this required time period, it is incumbent upon EPA to not impose conflicting requirements which would effectively negate the availability of this transition period from *status quo ante* of substantial control of HFC-23 to *near-zero* emission requirements the Agency seeks to impose. Clarification of both preamble

[129] 86 Fed. Reg. at 27,178 (emphasis added).

[130] *Id*. (emphasis added).

[131] Proposed 40 C.F.R. §84.27(a); *see also* 86 Fed. Reg. at 27,218. This deadline, however, may also be extended by up to 1 year in six-month increments. *Id.* §84.27(a)(1).

[132] Proposed 40 C.F.R. §84.5(a); 86 Fed. Reg. at 27,210.

[133] Section 103(e) of the AIM Act provides that EPA "*shall establish* . . . a production baseline for the production of *all regulated substances* in the United States." This baseline is "the quantity equal to the sum of . . . the average annual quantity of *all regulated substances* produced in the United States during the period . . . beginning on January 1, 2011 . . . and . . . ending on December 31, 2013." Parallel statutory language applies to consumption baselines.

[134] 86 Fed. Reg. at 27,178.

and regulatory text is needed to address the realistic need to design, manufacture, install, test and verify the operation of new emission control technology as well as systems that will improve the capture of HFC-23 and allow for collection and transport of this HFC-23 for destruction.[135]

Chemours seeks clarity that the Agency intends (as suggested in the preamble) that allowances are not required for HFC-23 emissions until emissions are controlled in compliance with the specified standard.[136]An option the Agency has is to allocate sufficient allowances to address the interim period after imposition of the requirements of §84.5(a) to hold allowances addressing production of HFC-23 and before full operational status of HFC-23 control equipment. That is, such allocations would last until such time as such production of HFC-23 is subject to the separate requirement (proposed in §84.27(a)) regarding the control of HFC-23 emissions, including any granted extensions pursuant to §84.27(a)(1). Another option the Agency should consider would be to address this matter through expansion of the exceptions allowed from the general requirement to expend allowances to cover the production of regulated substances (as proposed in §84.5(a)(3)) where regulated substances are destroyed to clarify that this exception also covers the interim period necessary for installation and operation of HFC-23 controls.

Under the first option, while EPA has not proposed specific allowance allocations under the proposed rule, to the extent that allowances for other HFCs are allocated based on prior production and consumption of HFCs during the baseline period established by the AIM Act, HFC-23 should be treated in an identical manner concerning all production of HFC-23[137] (again, for at least the period of time necessary to address the separate emission control standards that apply solely to HFC-23). In other words, sufficient allowances should be provided to prior producers in order to accommodate HFC-23 production prior to the time that new destruction technology for HFC-23 can be effectively installed.[138] In addition, all other HFC-23 specific restrictions discussed in the preamble that would impede the use of allowances would also not be imposed during such time.[139] With regard to the second option, EPA has proposed criteria under which a producer is not required to expend allowances when regulated substances are destroyed.

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[135] Chemours would further note that while it may be "on notice" that EPA intends to proceed in some fashion with entirely new requirements specific to HFC-23, Chemours like all other regulated parties will not have specific notice of the final requirements that would apply until such time as EPA promulgates a final rule, which the Agency has announced will be in the fall of 2021 to coincide with the statutory requirement to issue a final rule.

[136] Alternatively, EPA could clarify that HFC-23 production is included within the total production (MMTEVe) figures provided for within the proposed 40 C.F.R. §84.7(a)(3) table and thus would be allocated pursuant to proposed §84.9.

[137] The AIM Act defines "produce" to mean the "manufacture of a regulated substance from a raw material or feedstock chemical [excluding destruction]." HFC-23 is produced from raw material during the production of HCFC-22.

[138] Chemours has previously noted that EPA has access to HFC-23 production data through GHGRP reporting under Subpart O. In order to implement this alternative EPA could utilize this data or request other company-specific data prior to the determination and allocation of allowances this fall.

[139] EPA indicates that it is "proposing to exercise . . . significant discretion to only allow production and consumption allowances to be expended for HFC-23 if the HFC-23 is refined and sold for consumptive uses, such as in semiconductor etching or refrigeration at very low temperatures." *Id*. It does not appear, however, that EPA has proposed regulatory language to implement this HFC-23 specific restriction. There is no proposed Part 84 regulatory text which even uses the term "consumptive use" much less imposes a particularized HFC-23 restriction. Chemours is also not aware of any other provision proposed by EPA that would apply such a restriction to other regulated substances.

This provision could be further clarified to address the interim period necessary to implement new HFC-23 capture and destruction technology. In other words, an exemption could effectively serve as a substitute to the allocation of allowances based on prior HFC-23 production.

Regulatory language to accomplish the first alternative could be added to the end of proposed §84.9 as follows:

"(5) Production allowances based on prior production of HFC-23 during the baseline period for production of HFCs shall be made available to prior producers in sufficient quantity to address the amount of total HFC-23 produced during the manufacture of HCFC-22 during the period January 1, 2022, to October 1, 2022, and during any period covered by an extension granted pursuant to §84.27(a)(1)."

Regulatory language to accomplish the second option could be added to the end of proposed §§84.5(a) as follows:

"(4) An entity is not required to expend production allowances to produce HFC-23 that is not sold for consumptive uses during the period January 1, 2022, to October 1, 2022, and during any period covered by an extension granted pursuant to 84.27(a)(1)."

The legal and rational basis for either of the provisions would lie in EPA's proposed disparate treatment of *one* AIM Act regulated substance versus *all other* regulated substances considering that Congress provided for no such distinction but rather defined "regulated substances" with reference to a specific list of HFC (*i.e*. within Section 103(c)(1) of the AIM Act). In other words, if EPA is to finalize provisions which impose restrictions unique to HFC-23, it must at the same time provide for reasonable accommodation of the intended transition to novel capture and destruction provisions that apply solely to HFC-23.

C. The Statutory Design of the AIM Act Ensures that Environmental Objectives will be Achieved using Scientifically Derived Values

Within the AIM Act, Congress provided for the phaseout of HFCs using an allowance system that is based on exchange values. Exchange values are essentially the relative global warming potential (GWP) of individual HFCs and these values must be used for establishing production and consumption baselines. Production and consumption baselines are then, in turn, utilized for determining the quantity of allowances for production and consumption.[140] The same exchange values are also used to implement other parts of the AIM Act. Transfers of allowances are to use "the applicable exchange values" for listed regulated substances or the exchange value later promulgated for newly designated regulated substances.[141]

EPA noted this statutory structure when it observed that the AIM Act "requires EPA to phase down the consumption and production of statutorily-listed HFCs on an exchange value-weighted basis according to the schedule stated in [AIM Act Section] (e)(2)(C)."[142] As a result,

[140] AIM Act, §103(e)(1)(D).
[141] *Id.* §103(g)(1).
[142] 86 Fed. Reg. at 27,153.

EPA proposed an "exchange value equivalent" to provide a "common unit of measure."[143] This allows for "the comparison between, and calculation with, different regulated substances."[144] This same common unit of measure is utilized with regard to the AIM Act's "allowance allocation and trading program."[145] The trading program must use exchange value equivalents in order to ensure that GHG reductions can continue to be addressed even as different HFCs may be produced for different end uses over the next 15 years (when the 85% control level becomes fully effective).

As a result, the statutory allowance system based on exchange values ensures that the environmental goals of the AIM Act will be fully addressed, no matter what mix of HFCs may be in use 5, 10 or 15 years from now. Regulated substances will be phased down based on their scientifically established contribution to climate change. This statutory structure is, in essence, a zero-sum game: to utilize HFCs with relatively higher GWP, correspondingly more allowances are required to be held by producers and importers. If relatively low GWP HFCs are produced or imported, correspondingly less allowances are required and more kilograms of an HFC can be produced or imported. The effect on the environment is the same.

While in the proposed rule EPA notes that HFC-23 retains the highest exchange value among all regulated substances, within the context of implementing the AIM Act, this exchange value does not convey any advantage vis-à-vis other HFCs, but rather a statutory disadvantage. Thus, EPA is not otherwise directed by the statute to provide for a more aggressive phasedown of higher GWP HFCs such as HFC-23. Rather, the statute contemplates that diminution in use of higher GWP HFCs will occur as an economic result of the allowance system as well as other mechanisms noted above that may either accelerate the HFC phasedown or limit specific end uses.

D. EPA Either Must Review Existing Information on HFC-23 or Obtain Information Comparable to Information Intended to be Utilized for Other HFCs

In the proposed rule and its presentation of aggregate 2011-2013 baselines for the calculation of HFC production and consumption allowances, EPA did not include information on HFC-23. EPA failed to provide such information despite being notified of its obligation to do so several months prior to the release of the proposed rule.[146] In addition, new information submitted to the docket (*i.e.*, HFC Production and Consumption – Proposed Rule, submitted in April 2021) included only 17 of the 18 regulated substances specified in the AIM Act, once again excluding HFC-23. EPA has since requested information from prior producers of HFC-23. EPA should use this HFC-23 information, or other information of sufficient quality, to allocate allowances based on historical production and consumption of HFC-23 during the 2011-2013 baseline on the same basis as allowances are provided to other HFCs. Alternatively, EPA could consider the allocation of allowances pursuant to the alternatives outlined above in Section IX.B.

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[143] *Id*. at 27,161.

[144] *Id*.

[145] *See* AIM Act, section 103(e)(3)(A),(B).

[146] *See* Chemours Comments on EPA's NODA (86 Fed. Reg. 9,059 (Feb. 11. 2021)). These comments have been resubmitted for the docket of this proposed rule. (Attachment 1).

X. EPA Must Also Clarify Several Other Provisions Respecting HFC-23

A. HFC-23 Emissions Are to be Measured Against HCFC-22 Production

EPA's proposed regulatory language in 40 C.F.R. §84.27 indicates that "as compared to the amount of chemical intentionally produced . . . no more than 0.1 percent of HFC-23 created on the line may be emitted." Chemours understands that "chemical intentionally produced" references HCFC-22 and that this terminology intentionally distinguishes "chemical" from "regulated substance" meaning that the 0.1 percent of HFC-23 created is in relation to the amount of HCFC-22 produced. EPA, however, should clarify in any final regulatory language that limitations on HFC-23 are measured against the production of HCFC-22 or other non-HFCs. In addition, EPA should provide a more specific metric for measuring the required level of emissions than the proposed percentile standard. Specifically, Chemours would suggest utilizing a standard based on relative measurement of emissions.

Both revisions may easily be accomplished by amending the proposed regulatory language as follows:

"(a) No later than October 1, 2022, as compared with the amount of HCFC-22 produced on a facility line, no more than 0.1 kg of HFC-23 may be emitted per 100 kilograms of HCFC-22 produced by such facility line."

B. EPA Should Retain Ability to Obtain Two Extensions

EPA should retain the ability to request two, 6-month extensions for the imposition of any limitation on HFC-23 emissions as contained in the proposed regulatory text at 40 C.F.R. §84.27(a)(1)-(2). The Preamble for the proposed rule requests comment on whether EPA should provide for only a single, one-year deferral of the emission standard with no possibility of an extension.[147] While, as described above, Chemours has publicly announced its plans to install new technology to address HFC-23 by the end of 2022, EPA should retain the proposed rule language allowing for the possibility of two, six-month extensions. Any multi-million dollar project to effect a re-design of a production facility with new, untested technology risks possible delay and can experience unforeseen complications despite thorough advance planning. EPA should retain the flexibility to review and approve extensions to account for these and other possibilities.

C. EPA Should Not Promulgate A Single List of Destruction Technologies

EPA has proposed a list of destruction technologies applicable to the destruction of regulated substances, except for HFC-23, as well as a list of destruction technologies that are specific to the destruction of HFC-23.[148] EPA should not promulgate a single list of destruction technologies based solely on HFC-23. HFC-23 is rarely used in blends. Therefore, having a single list of destruction technologies based on HFC-23 is not needed. Imposing overly stringent

[147] 86 Fed. Reg. at 27,179.
[148] Proposed §84.29.

requirements for other HFCs based on HFC-23 blends could cause material harm to current operators of destruction facilities.

D. EPA Should Clarify Regulatory Language Regarding Time Periods for Destruction

EPA has proposed that the expenditure of production allowances is not required if regulated substances are destroyed "within 30 days."[149] Where offsite destruction of HFCs is used, allowances are not required if the HFCs are destroyed in 90 days.[150] These provisions should be clarified to indicate that destruction is to occur within a time period measured from the point in time when a suitable amount of HFC is captured allowing for efficient destruction. Under systems that are in use or contemplated for installation, HFC-23 is first captured during the production of HCFC-22 and then stored until such time as it is either sold or a "batch" is designated for destruction. But the time required for the collection of a batch will vary according to the production process and the operation of a specific facility. While Chemours agrees that EPA should establish outside limits for ensuring destruction, these limits must reasonably reflect the production, capture and destruction process utilized for HFC-23. Thus, EPA should revise the proposed regulatory language as follows:

> "(3) A person is not required to expend production allowances . . . if the regulated substances are destroyed using a technology approved by the Administrator for destruction under §84.29 within 30 days of the time in which a suitable batch is collected if the destruction technology is located at the facility where the production occurred or 90 days after a suitable batch is collected if the destruction technology is not located at the facility where the production occurred."

XI. EPA Should Allocate 2024 and Future Allowances Based on Consistent Methodology Pursuant to Requirements of the AIM Act

EPA describes Section XI of the preamble as an advanced notice of proposed rulemaking ("ANPRM") regarding ideas EPA is considering for "the criteria/framework for issuing allowances for 2024 and later years."[151] This characterization is a misnomer since EPA is not charged with promulgating a "criteria/framework" for 2024 and later years. Rather, Section 103(e)(2)(D) clearly directs EPA to use the "*quantity calculated*" for allowances "to determine the *quantity of allowances* for the production and consumption of regulated substances." As noted in more detail below, various concepts for allowance "allocation", that in some cases may be characterized as "sale" rather than "allocation", are at odds with the statutory language of the AIM Act and cannot otherwise be supported under any authority conveyed to EPA by Congress.[152]

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[149] Proposed §84.5(a)(3).

[150] *Id*.

[151] 86 Fed. Reg. at 27,157.

[152] EPA did examine other allocation structures, including fees and auctions, in connection with implementation of the Montreal Protocol using the authority of the former section 157(b) of the CAA. See 53 Fed. Reg. 30,566 (Aug. 12, 1988). EPA received comments questioning the legal basis of such actions and, in the end,

A. EPA Has Limited, Specific Authority Concerning Allowance Allocations Under AIM Act

Unlike many other federal departments and agencies, EPA has no "organic statute" that directs the Agency's operations. EPA, instead, was created through an Executive Order.[153] This order provided for the establishment and basic organizational structure of the agency and transferred to the EPA Administrator certain functions previously performed by other parts of the federal government.[154] But, like all Executive Orders, the governmental reorganization plan that created EPA did not serve as new legislative authority for the operation of the Agency.

This history should be kept in mind when assessing the authority of EPA to implement a program to phasedown HFCs under the AIM Act. Put simply, EPA cannot rely on other authority conveyed to the Agency to implement the AIM Act apart from the authority conveyed by that Act. As noted above, while Congress intended EPA to implement the AIM Act in a manner consistent with its prior implementation of ODS programs pursuant to Title VI of the CAA, the AIM Act was not an amendment to the CAA, but rather a free-standing law. Explicit cross-references to the CAA in the AIM Act were also not directed to parts of the CAA conveying substantive authority to control stationary sources, mobile sources, air toxics or other air pollutants. Rather, the AIM Act cross-references provisions of the CAA that are specifically directed to administrative, venue, information gathering and enforcement authorities.[155] EPA must therefore find its authority for allowance allocations solely within the confines of the AIM Act.

As noted previously, EPA's stated rationale for proposing alternatives to the traditional allocation of allowances to producers and importers is based on the CAA providing for a ***phaseout*** of ODS versus ***phasedown*** of HFCs under the AIM Act.[156] But this distinction is first inaccurate and second, of no value in interpreting EPA's legal authority with respect to allowance allocations. First, EPA does not have complete legal authority to phase out all ODS -- given the many exceptions to the complete phaseout of ODS provided in Title VI noted previously.[157] And clearly, not all ODS have been phased out pursuant to Title VI more than 30 years after both ratification of the Montreal Protocol and enactment of the 1990 Clean Air Act Amendments. Pre-shipment and quarantine uses of ODS are still legal and, in some cases, required pursuant to authorities conveyed to other parts of the federal government. It could also be inferred that since the ODS reductions occurred stepwise, they set precedents for the stepwise reductions that are required for HFCs under the AIM Act.

Second, even if EPA had complete authority with respect to ODS, the requirement to phasedown HFCs to 85% of historic production/consumption (with additional authority to reduce allowed production by more than 85% contained in several sections of the AIM Act) makes the distinction in authorities effectively meaningless. Nowhere in the preamble of the proposed rule

finalized an allocated quota system indicating that "[a]ccording to economic theory, an allocated quota system should achieve EPA's regulatory goal at the lowest possible cost to society." *Id.* at 30,567.

[153] Reorganization Plan No. 3 of 1970, 35 Fed. Reg. 15,623 (Oct. 6, 1970).

[154] *Id.* at Sec. 2.

[155] AIM Act, section 103(k).

[156] 86 Fed. Reg. 27,203.

[157] See n. 88-90, supra

does EPA disclaim authority to accelerate the phasedown of HFCs or to utilize authority conveyed to control HFCs in sectors or subsectors.[158] Nor does EPA affirmatively state that it has authority *only* to phasedown HFCs to 85% of prior production and consumption. EPA's conceptual framework for interpreting the AIM Act to provide it with latitude to consider a different allowance criteria/framework is therefore without foundation. In order to articulate a difference between a phaseout and phasedown as between Title VI and the AIM Act as conveying authority with regard to allowance allocations, EPA must first specify precisely what that difference is and what legal constraints in the AIM Act prevent the Agency from exceeding an 85% reduction in HFC production and consumption relative to baseline.

Third, EPA fails to explain why any difference between an 85%, 95% or 99% phasedown in HFCs versus a theoretical 100% phaseout for Class I and Class II substances is meaningful with respect to the allocation methodology for allowances. EPA provides no such explanation, but rather asserts that this differential (of whatever percentage it actually might be in reality) somehow authorizes the Agency to implement allowance allocation systems that use more recent years data apart from baselines, impose fees for acquiring allowances or allow the Agency to run an auction for allowances when no provisions in the AIM Act provide for such actions. It is simply not enough to make a theoretical distinction between Title VI and the AIM Act. Such a distinction must have a meaningful difference that would justify implementing a completely different methodology of allocation allowances than EPA has utilized over the past 30 years.

Finally, AIM Act provisions regarding allowance allocations are clear and dispositive. The AIM Act provides that phase down of production and consumption of HFCs is to occur through an "allowance ***allocation*** and trading program." Sec. 103(e)(3). Thus, the plain meaning of the statute precludes EPA from selling, auctioning or using other financial mechanisms that require value to be provided to the government for allowances – some of the concepts that EPA states it is considering for allowances after 2023***. EPA is directed to allocate allowances*** under the AIM Act – not sell, auction or otherwise solicit financial contributions in order for an entity to obtain allowances.

B. EPA Must Allocate Allowances Solely to Historical Producers and Importers of HFCs

EPA has requested advance input on several "concepts" with regard to allowance allocations in 2024 and succeeding years. These include allocating allowances based on past production and consumption while recognizing transfers among companies, allocating allowances based on more recent years of production and consumption, requiring a fee for every production or consumption allowance, using an auction system or some combination of the identified approaches, including phased-in fees or auctions.[159] As noted above, EPA lacks any statutory basis in the AIM Act for any allowance approach apart from the required allocation and trading program provided in Section 103(e)(3) of the AIM Act. There is no provision in the AIM Act which identifies any other basis other than historical production and consumption of HFCs,

[158] AIM Act, sections 103(f), (i).
[159] 86 Fed. Reg. at 27,203.

CFCs and HCFCs for the determination of the amount of allowances to be allocated.[160] EPA is directed to phase down the production and consumption of regulated substances solely through "an allowance and trading program in accordance with [the AIM Act]."[161] EPA may not find discretion when statutory language is explicit and thus, the Agency has no statutory basis on which to explore extra-statutory "concepts" for the distribution of allowances.

The prohibitions on production and consumptions of HFCs[162] are based on the quantity of total allowances that EPA is required to calculate based on past historical production of HFCs, CFCs and HCFCs.[163] The AIM Act further provides that an allowance is "a limited authorization for the production or consumption of a regulated substance"[164] further tying allowances directly to these activities. Where such an explicit connection between the determination of allowances and their intended use is provided by statute, EPA may not imply a broader economic scheme was intended and thus, allowing the Agency to utilize a wide range of theoretical allowance methodologies. In short, Congress provided a definition for what allowances are, how the amount of available allowances is calculated and how allowances are to be used, which are all tied to historic production and consumption. When such an explicit statutory scheme is provided, Congress is not required to legislate in the negative and specifically prohibit EPA from taking actions apart from the statutory scheme.

It is further revealing that EPA cites no statutory authority for the Agency to impose fees directly on producers and importers or to conduct an auction of allowances which would require the payment of fees to the U.S. Treasury. In the past, EPA has disclaimed any such ability under the Clean Air Act unless specifically authorized:

> The [Clean Air Act] does not include a broad grant of authority for EPA to impose taxes, fees or other monetary charges specifically for GHGs and, therefore, additional legislative authority may be required if EPA were to administer such charges (which we will refer to collectively as fees). EPA may promulgate regulations that impose fees only if the specific statutory provision at issue authorizes such fees, whether directly or through a grant of regulatory authority that is written broadly enough to encompass them.[165]

EPA's sole rationale to support a fee or auction system (for which no statutory authorization is provided) is therefore the supposed difference of an 85% phasedown versus a theoretical (and inaccurately portrayed) 100% phaseout. Given that EPA has no taxing authority within the CAA and that any authority for fees is specific to individual provisions in the CAA, nor does such authority exist for either activity in the AIM Act, the comparison between the two statutes as a front of authority for a fee or auction system for HFC allowances is further

[160] in

[161] *Id*., section 103(e)(3).

[162] Id., section 103(e)(2).

[163] Specifically, EPA is to use the quantity calculated pursuant to section 103(e)(2)(B) to determine the quantity of allowances than may be used in a given year. *See* AIM Act, section 103(e)(2)(B).

[164] *Id*.

[165] 73 Fed. Reg. 44,411 (July 30, 2008).

undermined. Furthermore, there is no indication in legislative history of the AIM Act that would demonstrate that Congress intended to convey such new authority to EPA.

That such fees or other economic instruments are not authorized is further underlined by the fact that when Congress intended to provide such authority with respect to ODS, it acted separately to provide such authority, not to EPA but to the Internal Revenue Service ("IRS") and not within the CAA or another environmental statute, but through language contained in an omnibus budget measure:

> This document contains final regulations relating to the tax on chemicals that deplete the ozone layer and on products containing such chemicals. These regulations reflect changes to the law made by the Omnibus Budget Reconciliation Act of 1989 and the Omnibus Budget Reconciliation Act of 1990. They affect manufacturers and importers of ozone depleting chemicals, manufacturers of rigid foam insulation, and importers of products containing or manufactured with ozone-depleting chemicals. In addition, these regulations affect persons, other than manufacturers and importers of ozone-depleting chemicals, holding such chemicals for sale or for use in further manufacture on January 1, 1990, and on subsequent tax-increase dates.[166]

The excise and floor tax regulations for ODS were promulgated by the IRS through a 1991 rulemaking and are contained in 26 C.F.R. Part 52. EPA neither implements these regulatory provisions nor collects the taxes due.

C. Several Policy Reasons Weigh Against Alternative Allowance Allocation Systems

EPA has historically recognized that prior producers and importers of regulated substances bear the financial burden (having their ability to sell a product diminished or extinguished) of implementing provisions concerning ODS. At the same time, these parties have also historically invested in and developed new alternatives, allowing for an acceleration of the transition to safer and more environmentally beneficial alternatives. Allocating allowances to prior producers and importers both recognizes the cost of new regulatory requirements on historic producers and importers and the substantial investments made by such companies to allow for a successful transition to safer and more environmentally beneficial alternatives. The same cannot be said to be true for allowing equivalent access to allowances for entities that may have invested nothing in the transition to HFC alternatives but seek now to either simply import foreign-produced HFCs or compete in the domestic production market.

EPA has not provided any information as to why it would be justified to depart from the statutory language of the AIM Act or prior practice regarding the Agency's treatment of Class I and Class II ODS. To the contrary, EPA admits that some concepts would raise costs to consumers, a goal nowhere expressed by Congress in the AIM Act in either its statutory language or legislative history. Requiring companies to pay a fee for allowances would result in an "expected increase in the market price of HFCs that is likely to occur over time as [the

[166] 53 Fed. Reg. at 56,303 (Nov. 4, 1991).

amount of] allowances decrease . . . [this alternative] could increase the cost of HFCs."[167] While EPA suggests that an increase in price could also foster "faster transition to alternatives," the AIM Act already includes authority to approve full, partial or graduated prohibitions on HFCs in individual sectors or subsectors based on the availability of substitutes and other factors.[168] Given the provision of this explicit authority and criteria to approve a transition to HFC substitutes, EPA may not imply that broader authority exists elsewhere in the AIM Act.[169]

Both fees and auctions would introduce market uncertainty which could potentially raise costs without any corresponding environmental benefit. Under the AIM Act, the graduated reduction of HFCs on an EVe basis ensures that the environmental goals of the legislation will be met. Should an allowance system that either imposes or raises the cost of allowances be employed, these costs would only be additive. And certain systems, *e.g.*, a short-term auction of allowances, could introduce increased prices based simply on market uncertainty through the "bidding up" of a diminishing supply of allowances. None of this would inure to the benefit of the environment; rather the cost of allowances could actually have the opposite effect of incentivizing purchasers to make sure that increased costs associated with allowances were realized through longer-term production of HFCs and HFC-based products.

D. EPA's Alternative Allowance Allocation Methodologies Could Hurt U.S. Production and Benefit Foreign Producers

The AIM Act addresses production and consumption of HFCs in the United States but must also be viewed in the broader context of the international market for HFCs. In this regard, domestic producers have significant fixed asset sites and facilities that are dependent on meeting stricter environmental performance standards than the foreign suppliers. Domestic producers also have long supply chains and long-term business contracts for raw materials. United States producers rely on a skilled workforce which, in turn, is dependent on maintaining employment levels. To the extent that allowances are allocated or made available to entities that do not have such a historic investment in the United States and its workforce, the end result is directly contrary to the legislative intent of the AIM Act to focus on job creation in the United States.

According to the prime Senate sponsors of the legislation, Congress expected the AIM Act to "create 150,000 direct and indirect U.S. jobs as well as generate $38.8 billion in economic benefits annually by 2027."[170] When the House Committee on Energy and Commerce marked up H.R. 5544, the House version of the AIM Act, on March 12, 2020, it forecast the creation of 33,000 new manufacturing jobs in the United States and an additional $12.5 billion per year in benefits to the U.S. economy. The committee further cited the potential for the United States share of the global market for HVACR equipment to "grow by 25 percent over current levels and

[167] 86 Fed. Reg. at 27,203.

[168] AIM Act, section 103(i)(4).

[169] *See Fourdo Glass Co. v. Transmirra Products Corp*., 353 U.S. 222, 228 (1957); *Crawford Fitting Co. v. J.T. Gibbons, Inc*., 482 U.S. 437, 444-45 (1987); *Green v. Bock Laundry Mach. Co*., 490 U.S. 504, 524-26 (1989).

[170] Carper and Kennedy Introduce Bill to Phasedown Use of HFCs, U.S. Senate Committee on Environment and Public Works, November 1, 2019. Accessed at: https://energycommerce.house.gov/committee-activity/markups/markup-of-hr-6160-and-hr-5544-subcommittee-on-environment-and-climate.

improve the trade balance by increasing exports and reducing imports."[171] While all economic predictions contain some level of uncertainty, it is clear that Congress expected enactment of the AIM Act to benefit the U.S. economy and to create U.S. jobs. Allowance allocation systems which would "update" allowance allocations and create a shift in allowance allocations that would benefit new importers or foreign production runs counter to this express goal.

XII. Chemours Supports Reasonable Transparency Provisions

A. Elements of EPA's Proposed Requirements Are Reasonable

EPA's proposal to release aggregated national data is reasonable in a case where there are three or more reporting entities.[172] This is similar to EPA's treatment of data with respect to HCFCs. EPA's proposal to release aggregated inventory data as of December 31 each year is also reasonable and provides transparency. Finally, EPA's proposal to publish, each year, company allowances on an EV-weighted basis is also supportable and similar to the current system used for ODS.

B. EPA Should Reconsider Other Elements of Proposed Requirements

EPA is taking comment on whether to release "all HFC data, unaggregated and in a format similar to how it would be reported to the EPA.[173] EPA recognizes that many of these data elements have previously been considered to constitute Confidential Business Information ("CBI") but articulates several assumptions as to the benefits that could be derived from such widespread disclosure, including facilitating implementation of the allocation program and "increase[ing] the public and current market participants' ability to provide complementary compliance assurance and pressure."[174] EPA also indicates that public disclosure could facilitate compliance through "pressure" applied by customers, neighbors, investors and insurers.[175]

While Chemours supports disclosure of aggregated data as indicated above, HFC activity and information provided to the EPA remains CBI and must not be released by EPA at the company and/or transaction level. Enactment of the AIM Act did not amend or make any fundamental change in Exemption 4 of the Freedom of Information Act ("FOIA"). And a rule under the authority of the AIM Act does not amend FOIA, the criteria for exemptions or EPA's current rules affecting the submittal and handling of a FOIA exemption claim. Neither can EPA, through a proposed rule, alter expectations concerning CBI pursuant to *Food Mktg. Inst.* v. *Argus Leader Media*, 139 S. Ct. 2356, 2360 (2019).

Import data is available to EPA through other databases and systems. Data from those other public, or pay, systems should be used for company specific data. If the EPA identifies a gap between the data collected under the AIM Act and the public data (*e.g.* public import data shows "Unassigned" imports) then EPA should work with Customs and Import control to stop

[171] Memorandum to Subcommittee on Environment and Climate Change, Committee on Energy and Commerce Staff, March 10, 2020 at 3.
[172] 86 Fed. Reg. at 27,199.
[173] *Id*. at 27,198.
[174] *Id*. at 27, 197.
[175] *Id.* at 27, 198 citing law review article.

imports without proper documentation. In this regard, it is critical to prohibit masking of any information in U.S. Customs' records. Subscription customs data services today often have critical fields shown as "unknown," a practice that can be very protective of illegal importation.

XIII. EPA Should Further Define "Process Agent"

EPA has provided a definition for "process agent" since this term was not included within AIM Act statutory definitions. EPA's proposed definition, however, is too limited to include all relevant production processes. Chemours therefore requests that EPA revise the definition of "process agent" in the following manner:

> Process agent means the use of a regulated substance to form the environment for a chemical reaction or physical processing (e.g., use as a solvent, catalyst, suspension agent or stabilizer) where the regulated substance is not consumed in the reaction or physical processing, but is removed or recycled back into the process and where no more than trace quantities remain in the final product. A feedstock, in contrast, is consumed during the reaction."

The proposed change in regulatory language preserves all elements of EPA's proposed definition which are protective of the environment. Both removal and recycling back into a process are required and no more than "trace quantities" can remain in a final product. Thus, it is entirely consistent with the intent of the definition but would clarify that regulated substances may be utilized in more than strictly processes involving chemical reactions. Nothing within the AIM Act provides a basis for the more restrictive definition EPA has proposed.

XIV. Additional Comments on Proposed Regulations and Requests for Further Input

A. Container Heels

Importing container (ISO tank) heels are a necessary part of the global supply chain. Normal, small heel volumes returning in containers that were exported should be exempted from further requirements, particularly where there is little commercial value. Chemours would support requiring allowances for heel imports into the United States under the US Goods returned process as a method to deter illegal imports.

Along with this suggested policy, EPA should also consider a maximum heel weight to be applied with the policy. Ideally, that maximum heel weight would represent a vapor only heel based on actual industry data. Further, ISO tanks containing residual HFC heels should be directly connected to a full ISO tank shipment that originated in the US as a means of protecting against illegal imports coming into the US as ISO tank heels.

B. EPA Should Reconsider Regulatory Language Basing Violations on Amounts Measured Per Kilogram

EPA has incorporated regulatory language from 40 C.F.R. Part 82 to describe when an individual violation occurs. EPA should adopt a different metric for violations of the AIM Act given its utilization of exchange values, meaning that all amounts, as measured by weight, are not equivalent in terms of potential environmental harm.

Such a metric could utilize the AIM Act's provided EVe values relative to each other, or a more generalized grouping of regulated substances where violations for higher EVe value substances could be based on 1 kilogram, while lesser EVe regulated substance violations could be based on 2 to 4 kilograms, respectively. Such a system would provide more equitable treatment for violations based on different regulated substances or groups of substances.

C. Imports for Feedstock or Destruction:

EPA has proposed that "an individual shipment authorized through a non-objection notice must be destroyed within 60 days of import."[176] EPA has proposed that this same time period apply where an individual shipment is used in a process resulting in its transformation."[177]

EPA should recognize that imported shipments for use in transformation can be utilized for periods that extend much longer than 60 days. In the case where a shipment is being used as a feedstock to produce other chemicals, for example, companies are required to provide documentation of this transformation when the material leaves inventory. This reporting should be sufficient to address any compliance concerns that led to the proposal of the 60 day time limit. Transformation may also vary according to production processes and general market conditions; therefore, where proper reporting is undertaken, EPA should impose no time limit under 40 C.F.R. §84.25 where a regulated substance is imported for purposes of transformation.

Given that transformation is statutorily excluded from the definition of "produce" within the AIM Act (Section 103(b)(7)(B)), it may be argued that EPA lacks authority to require allowances be expended for this activity. Similarly, EPA's authority over the transformation process is constrained to ensuring that transformation takes place. Whether or not EPA has sufficient authority, imposing a 60-day limit on transformation as proposed under 40 C.F.R. §84.25(b)(3) is neither reasonable nor supported by adequate rationale. Alternatively, EPA could consider applying a 60-day time limit not to transformation of the material, but rather to the time in-between the importation of the material to receipt of the material at the facility that will be engaging in transformation.

In the EPA proposed process to import regulated substances as feedstocks or for destruction Under 40 C.F.R. §84.25, the petition process to import without expending allowances is limited to only the import for destruction and transformation. We agree with EPA that the ability to import without allowances is limited to only apply in these two scenarios. We further agree with EPA that any import of a regulated substance (e.g. virgin, used, recovered, recycled or reclaimed) requires allowances to be expended.

Further, while there are legitimate needs for destruction, EPA must take appropriate steps to ensure that virgin HFCs are not imported into the US for destruction for the purpose of generating carbon credits.

[176] Proposed 40 C.F.R. §84.25(b)(3).
[177] *Id*. at 84.25(a)(3).

XV. Addressing Health Risks Associated with Air Toxics in Communities Near Production Facilities

It is difficult to predict with certainty if the transition to HFC substitutes will lead to a potential increase in emissions of the associated feedstocks and byproducts. Production of HFC substitutes occurred during a portion of the time period considered in the regulatory impact assessment and thus some data examined may already reflect this trend towards substitutes, mitigating the effects of future transitions. The overall projected benefits of the proposed rule are also extremely large, with EPA calculating net present cumulative benefits from 2022 to 2050 at $283.9 billion at a 3 percent discount rate.[178] As noted by EPA, the rule "will reduce GHG emissions, which will benefit populations that may be especially vulnerable to damages associated with climate change."[179]

The draft Regulatory Impact Assessment notes that changes in any future health risks for communities living near HFC production facilities remain uncertain. As noted by EPA, HFCs are not a local pollutant and have low toxicity to humans.[180] Furthermore, as EPA also notes, production facilities are often subject to mature environmental statutes in addition to the CAA, including the Resource Conservation and Recovery Act and the Emergency Planning and Community Right-to-Know Act. To the extent production changes occasioned by the transition from HFCs to other alternatives exceed applicable regulatory levels, permits issued by local authorities may also be required.

In response to the solicitation for feedback on the key assumptions underlying the environmental justice analysis, there is established concern and specific deficiencies with the scientific methodologies utilized in the risk evaluation under Section 6(b) of the Toxic Substances Control Act ("TSCA").[181] Comments submitted on behalf of the Halogenated Solvent Industry Association (HSIA) provide a detailed technical discussion regarding these issues and the concerns pertaining to the use of these outcomes as the basis for EJ analysis.

With regard to the overall "form" of EPA's proposed regulations, the Agency has noted that while trading of allowances is required by the AIM Act, it is difficult to predict how much trading will occur as between companies or facilities. EPA indicates it is unable to predict the degree for which substitutes for HFCs will be produced.[182] This makes it difficult to predict with any degree of certainty how the transition away from HFC production will affect communities that live in the vicinity of production facilities. However, to the extent that HFC substitutes have already been approved under the Significant New Alternatives Program, effects on human health and the environment are closely examined, including maximum exposure concentrations for worker exposure, flammability and exposure occurring within the end use of the substitute, including the identification of activities with typical and maximum potential for exposure and

[178] Draft Regulatory Impact Analysis for Phasing Down Production and Consumption of Hydrofluorocarbons, EPA-HQ-OAR-2021-0044-0046 at 10.

[179] *Id*. at 17.

[180] *Id*. at 106.

[181] Problem Formulation of the Risk Evaluation for Carbon Tetrachloride (Methane, Tetrachloro-) CAS RN: 56-23-5; EPA Document # EPA-740-R1-7020) https://www.epa.gov/sites/production/files/2018-06/documents/ccl4_problem_formulation_05-31-18.pdf.

[182] *Id*. at 130.

who is expected to be exposed.[183] These same or similar requirements will apply to new substitutes intended as replacements for existing HFCs. Following this program, EPA's current approval process for HFC substitutes already includes a close examination of potential health and environmental effects that occurs prior to approval of new substitutes.

In addition, based on technical objectives of the manufacturing process, feedstocks are used and consumed, except for trace quantities, in the production of HFC alternatives, contributing to the minimization of exposure to communities in proximity to production facilities. And per EPA's proposed requirements with regard to process agents, reuse and recycling of the process agents is required along with no more than trace quantities of the process agent remaining in the final product. These and other aspects of the transition away from HFCs would serve to limit any localized effects and should be considered if EPA determines additional analysis is warranted.

XVI. Comments on Draft Risk Assessment

EPA has placed a Draft Regulatory Impact Analysis into the docket.[184] Upon review of this draft, we believe several corrections and clarifications are appropriate.

First, in Table 6-7, the report references emissions of vinyl chloride from the Chemours Louisville facility. However, at no time was vinyl chloride produced, handled, or emitted at the Louisville facility, including the period between 2010 and 2019. Table 6-7 should be amended to eliminate the data point showing emissions of vinyl chloride from the facility.

Second, the Chemours Chambers Works facility is not a current producer of HFCs. The production of HFCs at this facility was discontinued in 2014. Therefore, this facility should be removed from Table 6-1. Furthermore, in Tables 6-4, 6-5, and 6-6, the Chambers Works facility is identified as having releases associated with production of HFCs in the year 2019. Because the production of HFCs ceased in 2014, this data is inaccurate and should be removed from Tables 6-4, 6-5, 6-6. While Table 6-7 includes data from 2010-2014, when the facility did engage in the production of HFCs, the data is not specifically attributed to that time period and could therefore be misinterpreted to be ongoing. The most accurate resolution of these issues would be complete elimination of reference to the Chambers Works facility as part of this impact assessment.

Third, in Table 6-2, there is a note that states that Chemours manufactures products made from HCFC-22 at the Chambers Works facility, resulting in emissions of HFC-23. This statement is not accurate. Chemours did not manufacture any products made from HCFC-22 during this period. Instead, the emission of HFC-23 from this facility is only related to packaging activities, which were discontinued in 2015. Because this statement is not accurate and the associated hypothesis is therefore incorrect, this statement should be removed from the note in Table 6-2.

[183] See SNAP Information Notice, OMB Control No. 2060-0226 (EPA Form 1264-14 (Rev. July 2020).

[184] Draft Regulatory Impact Analysis for Phasing Down Production and Consumption of Hydrofluorocarbons (HFCs), EPA-HQ-OAR-2021-0044-0046.

Fourth, in Table 6-20, the number of informal and formal enforcement actions during the last five years is presented at a facility level. As explained in previous points, the Chambers Works facility was not a producer of HFCs during this time period and therefore should not be included in this table as one of the nine HFC production facilities for which this data is presented. Furthermore, EPA notes that "these enforcement actions are not necessarily specific to the HFC production process."[185] Thus, it is questionable how this enforcement data is relevant to EPA's estimation of the costs and benefits of implementing the phasedown of HFCs or changes in feedstocks, catalysts and byproducts to HFC production and related health risks for communities living near HFC production facilities, EPA's stated focus of the RIA.[186].

Finally, the data presented in Table 6-21 for the Chemours El Dorado facility is inaccurate and should be corrected. This facility had one non-compliance in the first quarter of 2018 related to a lab error which was resolved upon discovery. There are no further non-compliance events identified subsequent to that event in the Enforcement and Compliance History Online (ECHO) database and identifying the facility as in non-compliance for 12 quarters in Table 6-21 is incorrect. In addition, the presentation of data in this table is not an accurate reflection of the compliance status for a facility. As noted in the detailed facility report data dictionary, there are several factors to consider when utilizing this data. There are known data problems which may impact the completeness, timeliness, or accuracy of the data. Furthermore, the information presented in the ECHO database is used to track ongoing cases and should not be interpreted as a final outcome related to the violation and the presented duration of violations is only an estimate and may not reflect accurately the resolution or final decision related to an alleged violation. Therefore, utilizing this data to broadly present quarters of non-compliance is both misleading and not aligned with the overall objectives of the regulatory impact assessment.

We request that all identified errors be corrected in the final RIA.

XVII. Conclusion

Chemours appreciates the opportunity to submit these comments on EPA's proposed rule to implement the AIM Act. We believe that EPA should proceed to finalization of this rule, preferably within the window of time specified in the AIM Act. But EPA should also take the time necessary to fully review the detailed comments it has received from Chemours and other commenters. EPA's regulatory framework for the AIM Act will likely direct the phasedown of HFCs for the next decade and a half, if not longer. Thus, decisions that the Agency makes in 2021 with regard to allowance allocations, compliance measures, regulatory requirements regarding the transfer of regulated substances and allowances, how the Agency defines certain terms and requirements and what systems it will put in place to combat illegal imports will have lasting effects.

Chemours believes that the AIM Act provides EPA with sufficient authority to accomplish the dual goals of phasing down production and consumption of HFCs and preserving and enhancing U.S. leadership and economic activity with regard to HFC substitutes. EPA.

[185] *Id*. at 127.
[186] *Id.* at 8, 17.

however, should promulgate regulations that are both sufficiently precise and adequately supported in law and the administrative record to accomplish these goals. This will take both time and additional revisions to the proposed regulatory text and supporting technical documents, including the draft RIA.

Attachment 1

The Chemours Company

Comments on Notice of Data Availability Relevant to the United States Hydrofluorocarbon Baselines and Mandatory Allocations

Docket ID No. EPA-HQ-OAR-2021-0044

February 25, 2021

I. Introduction

EPA has requested comment on several matters concerning HFC use "in preparation for upcoming regulatory actions under the American Innovation and Manufacturing Act of 2020."[1] EPA is also requesting "comment on areas where additional information could improve the Agency's data on hydrochlorofluorocarbon consumption and production in the United States for [2011, 2012 and 2013]."[2] Specifically, among several other requests, the Agency has asked for input concerning:

> (1) "[A]reas where additional information could improve the Agency's data on hydrochlorofluorocarbon consumption and production in the United States for [2011 to 2013.]"[3]
>
> (2) "[T]he accuracy of the data and analyses presented in this notice and the draft reports in the docket . . . and potential data gaps."[4]
>
> (3) Whether companies listed in Table 2 "is the complete listing of companies who produced or destroyed HFCs in [2011-2013]."[5]
>
> (4) Whether there exist "potential data gaps" regarding companies that did not report HFC data pursuant to the GHGRP and "whether there are other gaps that the Agency has not considered."[6]
>
> (5) Whether companies listed in Table 2 represent a "complete listing of companies to have imported and exported HFCs in [2011-2013.]"[7]
>
> (6) "[C]omment on documents in the docket related to the applications for which section (e)(4)(B)(iv) of the AIM Act directs the Administrator to allocate the full

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[1] 86 Fed. Reg. at 9,059.
[2] *Id.*
[3] *Id.*
[4] *Id.* at 9,060.
[5] *Id.* at 9.063.
[6] *Id.*
[7] *Id.*

> quantity of allowances necessary, based on projected, current and historical trends."[8]

Chemours is pleased to provide information concerning these requested areas, as well as respond to the Agency's presentation of data in this NODA and the underlying rationale expressed by the Agency for the type and quantity of data presented.

II. EPA's Data Regarding HFC Consumption and Production in the United States is Incomplete Because it Omits Data on HFC-23

Table 1 of the NODA lists all regulated substances under the AIM Act with their respective chemical name, common name and global warming potential, expressed as "exchange values." And EPA makes clear what the purpose of this listing is by stating it is "providing this information in preparation for upcoming regulatory actions under the American Innovation and Manufacturing Act of 2020, included in the Consolidated Appropriations Act, 2021."[9]

But there is a serious omission in the data presented regarding the HFCs listed in Table 1. While, as EPA cites in the NODA, "the AIM Act states that for purposes of establishing the baselines . . . EPA *shall use* the statutorily provided exchange values *for each regulated substance* (*i.e., HFCs*)"[10] EPA does not include relevant data for all HFCs that are regulated substances under the AIM Act. Specifically, Tables 3 and 4 of the NODA present data on the "net supply" and imports of "AIM-Listed HFCs" that *exclude all data* on HFC-23. Since HFC-23 is a regulated substance under the AIM Act, Tables 3and 4 are therefore incomplete and must be modified to include all information concerning the production and consumption of HFC-23 during the statutory 2011-2013 baseline period.

A. The AIM Act Requires Data on Production and Consumption of all HFCs

The AIM Act contains a list of 18 "regulated substances" that specifically includes HFC-23.[11] The Act requires EPA to establish "a production baseline for the production of *all* regulated substances" and a "consumption baseline for the consumption of *all* regulated substances."[12] These production and consumption baselines are then utilized in provisions requiring a staged phasedown of production and consumption.[13] Monitoring and reporting requirements also explicitly reference "regulated substances"[14] as well as provisions affecting transfers and the management of these substances so as to prevent leaks from equipment and ensure safety.[15] Thus, production and consumption of HFC-23 during the baseline period of 2011 to 2013 is not only relevant to this NODA, but absolutely necessary for eventual implementation of the AIM Act which this NODA is designed to facilitate.

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[8] *Id*. at 9,064.
[9] *Id*. at 9,059.
[10] *Id.* at 9,061 (emphasis added).
[11] Continuing Appropriations Act, 2021 Sec. 103(c)(1).
[12] *Id.*, Sec. 103(e)(1)(A) (emphasis added).
[13] *Id.*, Sec. 103(e)(2).
[14] *Id.*, Sec. 103(d)
[15] *Id.*, Secs. 103 (g), (h).

B. EPA Cannot Rely on Subpart OO to Address All HFC Production

The only "explanation" given in the NODA for the Agency's omission of HFC-23 data is with reference to GHGRP reporting requirements contained in 40 C.F.R. Part 98, Subpart OO. EPA cites the definition of "produce" as contained in Subpart OO and claims that this definition is "similar" to the definition of "produce" in the AIM Act. But this regulatory definition is different in several important respects from the statutory definition of "produce" in the AIM Act, including with reference to *all* provisions in the Subpart OO regulatory definition regarding HFC-23.[16] Moreover, whether a 12-year old regulatory definition is "similar" to a 2020 statutory definition has no real meaning since Congress purposively and explicitly approved the AIM Act to regulate HFCs outside of the Clean Air Act ("CAA") without referencing the GHGRP.

In this regard, the genesis of the GHGRP is attributable to Congressional enactment of the Fiscal Year 2008 Consolidated Appropriations Act. This Act contained an administrative provision which stated that:

> Of the funds provided in the Environmental Programs and Management account, not less than $3,500,000 shall be provided for activities to develop and publish a draft rule not later than 9 months after the date of enactment of this Act, and a final rule not later than 18 months after the date of enactment of this Act, to require mandatory reporting of greenhouse gas emissions above appropriate thresholds in all sectors of the economy of the United States.[17]

In its first rule to require mandatory reporting of greenhouse gases, EPA explained that it was not, in fact, relying on appropriations act language as statutory authority for the GHGRP, but rather relying on CAA sections 114 and 208 to require information on greenhouse gas ("GHG") emissions be submitted to the Agency.[18] But neither CAA section 114 or 208 relate to the production or phaseout of HFCs, nor do they provide any direction to EPA concerning the meaning of "produce" within the context of the AIM Act. Rather, the regulatory definition of "produce" under the GHGRP was developed by EPA at a different time, for an entirely different purpose than the AIM Act.

The regulatory definition of "produce" under the GHGRP was not conjoined to any program to phase out HFCs under the CAA, nor would EPA take specific action to control the use of HFCs under the CAA for another six years *after* promulgation of the GHGRP.[19] While EPA may

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[16] 86 Fed. Reg. at 9,063. Despite EPA's claim that there is "sufficient overlap" between the two definitions, the GHGRP regulatory definition excludes HFC-23 while the AIM Act definition of "produce" contains no such exclusion.

[17] The Fiscal Year 2009 Omnibus Appropriations Act, Pub. L. 111-8 (Mar. 11, 2009), provided additional instruction to EPA on the use of $6,500,000 to develop and publish a final reporting rule.

[18] 74 Fed. Reg. 16,448 (Apr. 10, 2009). It should also be noted that the Joint Explanatory Statement for the Fiscal Year 2008 appropriations measure also included report language stating that EPA should utilize its authority under the Clean Air Act to promulgate a greenhouse gas reporting rule.

[19] *See* 80 Fed. Reg. 42,870 (July 20, 2015).

certainly make use of data compiled by the GHGRP regulation in order to efficiently implement the AIM Act, it cannot interpret the AIM Act based on the prior existence of the GHGRP which, at its core, was the result of a directive by Congress on how the Agency should spend some of its allocated funds during 2009 and 2010. And EPA certainly should not fail to include data on HFC-23 production from this NODA on that basis.

To not address HFC-23 production and consumption would be contrary to EPA's expressed intent in this NODA to "alert stakeholders of information from the Environmental Protection Agency regarding hydrofluorocarbon consumption and production in the United States for the years 2011, 2012, and 2013 and solicit stakeholder input."[20]

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C. EPA Should Use Existing Data Reported under 40 C.F.R. Subpart O Concerning HFC-23 Production

GHGRP regulations require reporting of HFCs under three separate subparts, L, O and OO. The NODA, however, indicates that "EPA anticipates at this time that the GHGRP data that will be used the most to inform the U.S. production and consumption baselines are supplies of HFCs listed as regulated substances in the AIM Act that are reported under Subpart OO of the GHGRP."[21] EPA, however, currently is in possession of extensive data on HFC-23 production during 2011-2013 pursuant to historical reporting under 40 C.F.R. Part 98, Subpart O. EPA should therefore review and utilize this existing data to supplement the aggregated HFC data included in Tables 3 and 4 for "AIM-Listed HFCS."

This should be corrected in any forthcoming proposed rule.

In the 2009 GHGRP Rule, EPA explained the logic behind its reporting requirements for fluorinated gases:

> EPA proposed provisions for facilities producing fluorinated gases in three separate subparts: 40 CFR part 98, Subpart L, Subpart O, and Subpart OO. Although there are many similarities across the chemicals and processes covered by the three subparts, the subparts were deliberately tailored to different sources and types of emissions. Subpart L was intended to address emissions of fluorinated GHGs from fluorinated GHG production. 40 CFR part 98, subpart O was intended to address HFC–23 generation and emissions from HCFC–22 production. 40 CFR part 98, subpart OO was intended to address flows affecting

[20] 86 Fed. Reg. at 9,059. The NODA also claims to provide information related to "total annual hydrofluorocarbon production and consumption between 2011 and 2013 reported to the Environmental Protection Greenhouse Gas Reporting Program as of March 30, 2020. *Id* (emphasis added). But by excluding production and consumption data on HFC-23, EPA has not provided data on total annual production and consumption, even though it has ready access to such information.

[21] 86 Fed. Reg. at 9,061 (emphasis added).

> the U.S. industrial gas supply, including production, transformation, and destruction.
>
> EPA determined that 40 CFR part 98, subpart O was necessary because HCFC–22 production and HFC–23 destruction facilities differ from other fluorinated gas production facilities in two key respects. First, the primary fluorinated GHG that they generate (HFC–23) is made as a byproduct to the production of a substance that is not defined as a fluorinated GHG (HCFC– 22). Second, due to the very high GWP of HFC–23, each HCFC–22 facility generates very large quantities of CO_2-equivalent. For the second reason, EPA has worked with HCFC–22 producers for over ten years to understand and reduce HFC–23 emissions. The requirements for HCFC–22 producers are therefore based on a close knowledge of their production processes and methods for accounting for emissions. These methods are also comprehensive (e.g., accounting for emissions from equipment leaks and losses during transport of HFC–23 that is shipped off-site for destruction). These requirements may not be appropriate for other fluorinated gas producers, and, at the same time, the requirements for fluorinated gas producers may not be appropriate for HCFC–22 producers.[22]

The distinctions made in the 2009 GHGRP rule were therefore based on the type of production facilities involved as well as the "flow" of fluorinated GHGs in the industrial sector. But given the production of HFC-23 by HCFC-22 facilities involves the production of a "regulated substance" for purposes of the AIM Act, the Subpart O data on such production is highly relevant to the NODA and implementation of the AIM Act.

The data contained in Subpart O is also of high quality, given the contemporaneous nature of the reporting required as well as the detailed requirements that EPA established for both measuring and reporting information concerning HFC-23. Specifically, Subpart O reporters must submit annual GHG reports that include HFC–23 emissions from all HCFC–22 production processes at the facility and HFC–23 emissions from each destruction process.[23] Among other requirements, monitoring and actions to ensure data quality under Subpart O must include:

> (a) The concentrations (fractions by weight) of HFC–23 and HCFC–22 in the product stream shall be measured at least weekly using equipment and methods (e.g., gas chromatography) with an accuracy and precision of 5 percent or better at the concentrations of the process samples.
>
> (b) The mass flow of the product stream containing the HFC–23 shall be measured at least weekly using weigh scales, flowmeters, or a combination of volumetric and density measurements with an accuracy and precision of 1.0 percent of full scale or better.
>
> (c) The mass of HCFC–22 or HCl coming out of the production process shall be measured at least weekly using weigh scales, flowmeters, or a combination of volumetric

[22] 74 Fed. Reg. at 56,307.
[23] *Id*. at 56,305.

> and density measurements with an accuracy and precision of 1.0 percent of full scale or better.
>
> * * *
>
> (f) The mass of HFC–23 sent off site for sale shall be measured at least weekly (when being packaged) using flowmeters, weigh scales, or a combination of volumetric and density measurements with an accuracy and precision of 1.0 percent of full scale or better.
>
> (g) The mass of HFC–23 sent off site for destruction shall be measured at least weekly (when being packaged) using flowmeters, weigh scales, or a combination of volumetric and density measurements with an accuracy and precision of 1.0 percent of full scale or better.[24]

To the extent existing Subpart O information on HFC-23 production during 2011-2013 is not considered complete or otherwise deficient, then EPA should solicit such information as a "data gap" in further action involving this notice or through an additional notice. But EPA should, at minimum, consider the information for the years 2011-2013 that is already compiled and submitted to the Agency during these baseline years.[25]

III. EPA Should Align Policy on "Data Gaps" With GHGRP Reporting

With the exception of its treatment of HFC-23 production and consumption as outlined above, Chemours agrees that EPA can utilize reported data under the GHGRP to help define baseline production and consumption of HFCs during the relevant 2011-2013 statutory period. The GHGRP reporting has the benefit of being contemporaneous with the baseline period. In addition, entities that reported under the GHGRP did so under a mandatory rule. As EPA stated upon promulgation of the first GHGRP Rule, "[t]his rule is being issued pursuant to the CAA, therefore, violations of this rule would be violations of requirements of the CAA."[26]

EPA has interpreted its authority to demand information for regulatory purposes broadly. In response to comments regarding the extent of reporting requirements under the 2009 final GHGRP Rule, EPA stated:

> *It is true that EPA has never issued a reporting rule of this scope under section 114 before. It is also true, however, that EPA has never undertaken such a comprehensive evaluation of how to address an air pollution problem under the CAA from the outset. And EPA has never undertaken such a comprehensive evaluation of emissions for pollutants like GHGs (which are long lived and therefore become well mixed in the atmosphere), and to address a phenomenon like climate change (which while global in nature, has regional impacts). Thus, it is not surprising that EPA is undertaking a unique approach to gathering and*

[24] *See* 40 C.F.R. §98.154

[25] *See* https://www.epa.gov/ghgreporting/ghg-reporting-program-data-sets.

[26] Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments, Volume No. 9, Legal Issues, September 2009 at 3.

> *evaluating information to allow it to thoroughly analyze how best to address GHG emissions and climate change under the CAA. Rather than proceeding piecemeal, gathering information from only certain sources, or using the information already available in whatever form, EPA is undertaking an effort to gather a consistent, comprehensive and accurate set of data to allow a full appraisal of the possible ways to tackle this unique issue.*[27]

EPA also specifically addressed the need for information concerning the full extent of HFC production in order to address the overall supply of HFCs and resulting downstream emissions from HFC users:

> *Information from suppliers of industrial greenhouse gases is relevant to understanding the quantities and types of gases being supplied in the economy, in particular those that could be emitted downstream which will aid in evaluating action under CAA section 111, as well as various sections of title VI (e.g., 609 and 612) that address substitutes to ozone depleting substances. For example, information regarding HFC production will assist us in calibrating the model we use to estimate HFC emissions from air conditioning units. If and when we go final with regulations covering users (and therefore direct emitters) of these industrial GHGs (e.g., electronics manufacturing), the information from suppliers will help us quality assure the information from direct emitters and determine if there are additional sources of emissions from which we need to gather information. In the meantime, it will give us a picture of the amount of such GHGs in commerce, and used by such direct emitting categories.*[28]

In sum, in the initial GHGRP Rule and subsequent rules, EPA has made it abundantly clear that the comprehensive reporting of data, including data on HFC production is: (a) mandatory and subject to enforcement under the CAA; (b) necessary to support important policy objectives involving the "large and complex" issue of climate change; and (c) necessary from all sources in order to provide information on the total amount of GHGs in commerce. These characteristics and regulatory focus are relevant to EPA's request for comment on certain "data gaps."[29]

A. "Gap Filling" Data Should Not Be Allowed for Entities Who Failed to Report or Otherwise Comply with the GHGRP

Companies that engaged in the production of HFC-23 and the destruction of HFC-23 have been required to report such activity for all years since 2010.[30] Specifically, pursuant to 40 C.F.R. Part 59, Subpart O, affected entities were required to calculate and report "[t]he mass of HFC-23 generated from each HCFC-22 production process . . . by using one of two methods, as applicable."[31] These entities were required to report the "[a]nnual mass of the HFC-23 generated

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[27] *Id.* at 8-9 (Italics in original).
[28] *Id.* at 17-18 (Italics in original, underlining added).
[29] 86 Fed. Reg. at 9,064.
[30] 40 C.F.R. Part 98, Subpart O, 40 C.F.R. §98.3(b).
[31] 40 C.F.R. §98.153(a).

in metric tons . . . sent off site for sale in metric tons . . . sent off site for destruction"[32] as well as other HFC-23 data.

In addition, companies that produced a fluorinated GHGs -- and any bulk importer or exporter of fluorinated GHGs in amounts more than 25,000 metric tons of carbon dioxide equivalent ("CO2e") have been required to report such activity since 2010.[33] Under 40 C.F.R. Part 98, Subpart OO, affected entities were required to measure fluorinated GHGs using flowmeters, weigh scales or other measures, to maintain records and to report this data in a manner similar to entities affected by Subpart O.

These obligations were not inconsequential burdens; affected entities under Subpart O and OO needed to devote time, attention and resources to the data gathering and reporting process. But during the rulemaking process, EPA explicitly considered whether reporting of such data would be prohibitive for small business owners or others with limited resources:

> As reported in sections VIII.C and D of the proposal preamble (74 FR 16599 to 16602, April 10, 2009), and in the economic impacts section of the preamble to the final rule, EPA analyses determined that the rule will not have a significant economic impact on a substantial number of small entities. The rule has been developed in such a way as to minimize the impact on small entities.
>
> To facilitate implementation and compliance, EPA plans to conduct an active and comprehensive outreach, training, and technical assistance program for the final rule. The primary audience would be the potentially affected industries, with an emphasis on assisting small entities in industrial, commercial, and institutional sectors that have only had limited experience with air pollution regulations under the Clean Air Act.[34]

Despite these long-standing requirements and outreach to small entities, the NODA indicates that "there appear to be companies that imported or exported more than 25,000 metric tons carbon that have failed to report their imports to the GHGRP."[35] EPA does not indicate how many companies are involved or how such companies would be treated in terms of their past failure to comply with the GHGRP. But as a matter of policy, EPA should exclude such imports and exports from the data assembled as a result of this NODA on several bases. First, the lack of contemporaneous compliance during the baseline years 2011-2013 standing alone, calls into question whether the data would have been assembled in compliance with applicable requirements. For example, pursuant to Subpart OO, the mass of fluorinated GHG was to have been measures "coming out of the production process over the [applicable] period."[36] Second, requirements were imposed to ensure the quality and veracity of the data. Subpart OO required

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[32] *Id.* §98.156(a)(7)-(9).

[33] 74 Fed. Reg. 56,260, 56,427 (Oct. 30. 2009); 40 C.F.R. Part 98, Subpart OO.

[34] Mandatory Greenhouse Gas Reporting Rule: EPA's Response to Public Comments, Volume No. 8, Compliance and Enforcement, September 2009 at 1.

[35] 86 Fed. Reg. at 9,064.

[36] 40 C.F.R. §98.412(a).

specific monitoring and "QA/QC" requirements.[37] It would not be clear how such requirements could be complied with retroactively. Finally, reports were also to have been submitted by April 1, 2011 describing the methods of direct measurement and estimation to be used and dated records were to be maintained.[38] None of these requirements were designed to be met – or can be met – after the fact. Thus, EPA should not utilize any data it receives pursuant to this NODA concerning HFCs that were not in compliance with applicable regulatory requirements at the time of generation.[39]

B. "Gap-Filling" Data Should Not Be Allowed for Other Entities

EPA is additionally soliciting data from companies that imported or exported less than 25,000 metric tons CO2e of HFCs annually during 2011-2013.[40] While these entities may not have had any obligation to compile and submit HFC data to EPA, EPA should not utilize data it may receive from such entities for the purposes outlined in this NODA. Specifically, EPA cannot assure itself, after the fact, that the data is of the same quality as contemporaneously acquired data and that the data used the same required methods and technology for its collection. EPA also had no opportunity, prior to the data collection, to review methods of data collection and estimation.

This is not to penalize those who were under no previous legal obligation to report the import or export of HFCs, but to recognize the inherent difficulties in determining the extent of such activity during 2011-2013 when no contemporaneous records were required to be generated or retained. There would seem to be a considerable burden placed on the Agency to verify such retroactive information. In addition, disallowing utilization of such data avoids a situation where an entity that operated during the baseline period may have purposively stayed under the reporting threshold through the creation of multiple small entities.

IV. EPA Must Consider Uncertainties in Data Concerning Mandatory Allowances

EPA contracted for outside consultant analysis regarding sectors identified in the AIM Act for mandatory allocations. This analysis utilized a variety of source material rather than data that was reported through mandatory reporting rules, such as the GHGRP. The data that EPA has assembled also contains various assumptions and uncertainties. For example, data on HFC use for metered dose inhalers indicates that prescriptions as reported may reflect either a "unit" or a "dose."[41] Information regarding the use of HFCs in the semiconductor industries identifies "three significant sources of uncertainty in this analysis."[42] It is also not clear with respect to specific end uses and products whether new alternatives will be developed and when. The development of alternatives could realistically impact the need to utilize HFCs.

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[37] *Id.* §98.416

[38] *Id.* §§98.416, 98.417.

[39] To be clear, this is not a matter of correcting past data that may have been submitted in error. Rather, as described in the NODA, EPA appears to be soliciting data that was never submitted to the Agency, although such data was always required to have been submitted.

[40] 86 Fed. Reg. at 9,064.

[41] Market Characterization of the U.S. Metered Dose Inhaler Industry, February, 2021 at 18.

[42] Market Characterization of the U.S. Semiconductor Industry, February, 2021, Appendix A.

EPA must take these data quality and data limitations into account in the HFC production and consumption data it assembles pursuant to this NODA. EPA may distinguish between contemporaneously reported data that was developed and submitted pursuant to regulation, and data that is estimated based on secondary sources of information. This distinction weighs on the side of conservatism with regard to the data that will be assembled for use with respect to AIM Act mandatory allocations.

V. EPA Should Correct Company Names and List of Companies Contained in Table 2

Table 2 contains a list of companies that reported production, import, export, or destruction of HFCs during 2011-2013. This table indicates that "Chemours" engaged in such activity. The correct name for our company is "The Chemours Company" and we ask that EPA utilize this name in any subsequent NODAs or regulatory documents utilized in implementing the AIM Act.

Table 2 also lists ICOR International Inc. On April 1, 2018, The Chemours Company, thru its wholly owned subsidiary, The Chemours Company FC, LLC acquired ICOR International. As previously requested,[43] any future actions by EPA as a result of this NODA or in furtherance of implementation of the AIM Act should consider all production and consumption baseline information for ICOR International to be that of The Chemours Company.

[43] Chemours Letter to Katherine Sleasman, USEPA Headquarters, January 22, 2020.

Attachment 2

ENVIRONMENTAL PROTECTION AGENCY

A Brief History of Unfairly Traded Imports of HFCs from China

Submitted on behalf of

American HFC Coalition

July 6, 2021

CASSIDY LEVY KENT, LLP
Washington, DC

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I. INTRODUCTION

On April 30, 2021, the Environmental Protection Agency ("EPA") issued a proposed rule that would phase out HFC refrigerants,[1] including the HFC blends and HFC components subject to several antidumping ("AD") orders, anti-circumvention findings, and U.S. Customs and Border Protection ("CBP") enforcement actions. The NPRM proposes to allocate the volume of HFC products that may be sold in the United States, based on the 2017-2019 market share held by U.S. manufacturers and importers of HFCs.[2] The NPRM cautions, however, that such Consumption Allowances may not be issued to importers that have not complied "with Department of Commerce (DoC) and CBP HFC trade provisions."[3]

As outlined below, Chinese exporters and related importers of HFCs made in China have engaged in unfair trade practices to penetrate the U.S. market, at least since 2013. These importers and their Chinese suppliers initially imported the most commercially significant HFC products—select HFC blends and R-134—at unfairly low prices. When in 2016 and 2017 Commerce issued antidumping orders imposing high cash deposit requirements on these products, various importers began circumventing the antidumping order by importing "unfinished" HFC blends,[4] blending in third countries, or importing unfairly traded HFC components (*e.g.*, R-32 and R-125) for blending in the United States. This pattern of circumvention began almost immediately after the antidumping duty orders were issued and was combatted with anti-circumvention decisions by Commerce, enforcement actions by CBP, and, by 2019, domestic producers were forced to petition for new antidumping and countervailing

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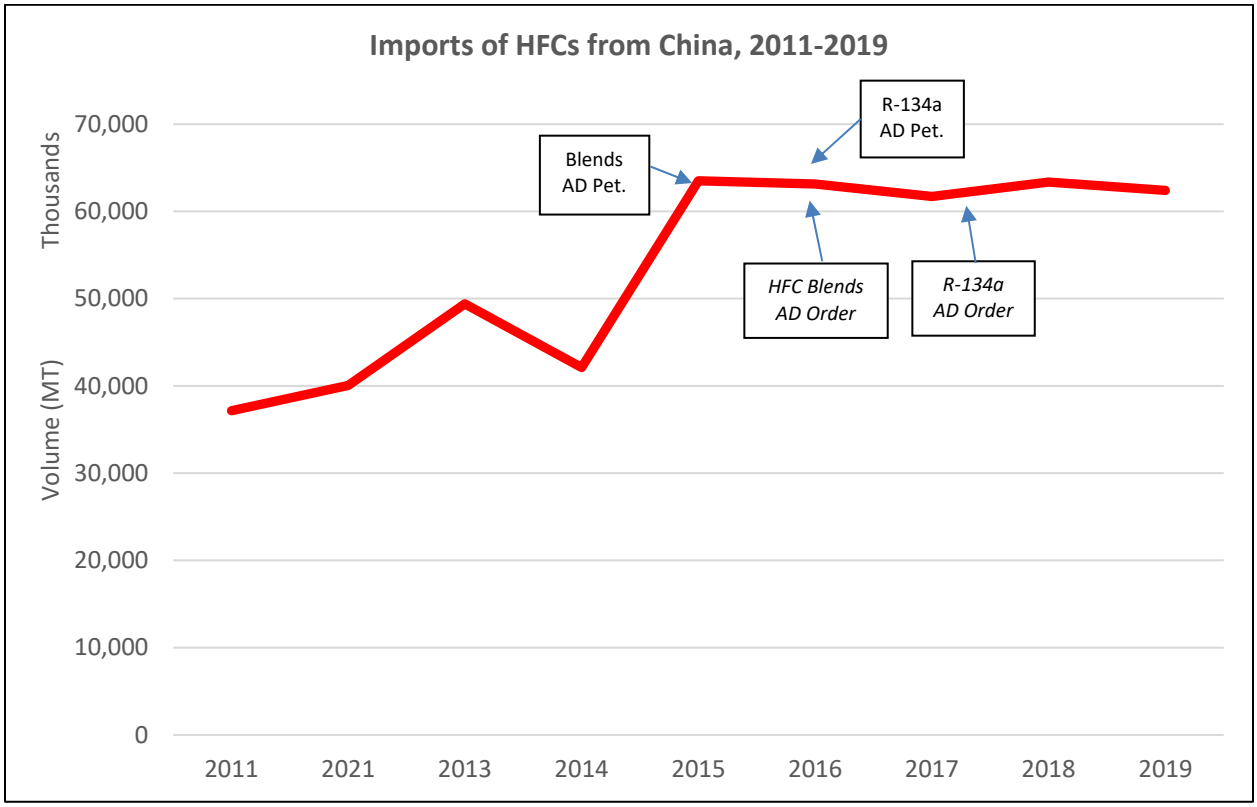
[1] *Phasedown of Hydrofluorocarbons: Establishing the Allowance Allocation and Trading Program under the American Innovation and Manufacturing Act*, 86 Fed. Reg. 27,150 (May 19, 2021) ("*NPRM*").

[2] *Id.* at 27,169 (EPA proposes to "issue allowances to companies that produced and/or imported HFCs during 2017, 2018, or 2019 that were still active in 2020").

[3] *Id*. The NPRM similarly indicates that other violations of U.S. Law, such as "falsifying information or data; not disclosing financial conflicts of interest or familial relationships in certain circumstances; noncompliance with the AIM Act or proposed prohibitions under §84.5" may result in "administrative consequences" for violators. *Id.* at 27,185.

[4] HFC blends covered by the Commerce antidumping order include, R-404A, R-407A, R-407C, R-410A and R-507A.

duty ("CVD") investigations covering individual HFC components of the major HFC blends, including components R-32 and R-125.



Source: U.S. Census Bureau (downloaded from the USITC Dataweb).[5]

The considerable U.S. market share seized over time by these unfairly traded imports was the direct result of a persistent pattern of dumping, circumvention, and evasion of U.S. law. As a result, U.S. manufacturers of HFCs suffered declining sales revenues and profits, and failed to earn an adequate return on investment for more than six years, including the years 2017-2019 that EPA proposes to use to establish allowances. At the same time, importers of unfairly traded Chinese HFCs increased their share of the U.S. market on the basis of unfair trade practices. Having seized market share and sales volume through the use of unfairly low prices through

[5] Includes imports for consumption classified under subheadings 2903.39,2005m 2903.39.2020, 2903.39.2030, 3824.78.0000, 3824.78.0020, and 3824.78.0050, HTSUS.

dumping and subsidization, importers of HFC blends and components from China should not receive Consumption Allowances based on sales of those dumped and subsidized imports.

The White House recently issued a comprehensive report setting a blueprint for enhancing domestic supply chains for a number of critical product groups, including computer chips and high-capacity batteries for electric vehicles.[6] Throughout, the report emphasizes the need to address overarching environmental concerns and, specifically, Chinese producers gaining U.S. market share by trading in products that were produced under lax environmental standards. "The Administration's approach to resilience must focus on building trade and investment partnerships with nations who share our values—valuing human dignity, worker rights, environmental protection, and democracy."[7] The Report goes on to emphasize the need to support "companies with strong track records of environmental compliance at their other or past operations."[8]

Consistent with these policies, the EPA should not award a disproportionate share of Consumption Allowances to circumventing importers associated with unfairly traded HFCs from China. Such a result is inconsistent with the purpose of the AIM Act. As important, the EPA must not award Consumption Allowances on the basis of market share seized by means of unfairly traded imports. Having increased market penetration through unfair trade practices, including dumping, subsidies, and circumvention of past antidumping duty orders, Chinese manufacturers should not further benefit through the assignment of Consumption Allowances to importers of the unfairly traded HFCs.

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[6] *See Building Resilient Supply Chains, Revitalizing American Manufacturing, And Fostering Broad-Based Growth, 100-Day Reviews under Executive Order 14017* (June 2021), available at https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf.

[7] *Id.* at 6.

[8] *Id.* at 143.

II. DISCUSSION

A. Imports of R-134a and the Major Commercial HFC Blends Penetrated the U.S. Market Using Unfair Trade Practices

1. Commerce Has Repeatedly Found Chinese Producers and their US Importers Are Selling at Triple-Digit Dumping Margins

Since at least 2013, imports of R-134a were being sold in the United States at dumped and subsidized price levels. The U.S. Department of Commerce ("Commerce") found that R-134a from China was being dumped by 280.67 percent[9] and was benefiting from subsidies ranging from 1.87 to 22.75 percent of the ad valorem U.S. price of the imported HFCs.[10] Although the U.S. International Trade Commission ("USITC") concluded that these imports were not yet a sufficient cause of injury to merit relief,[11] it was only a matter of time until rising volume of Chinese HFCs inflicted "material injury" on the domestic industry.

Less than two years later, in *Hydrofluorocarbon Blends from China,* Commerce found that Chinese imports of the subject "HFC" blends, including R-404A, R-407A, R-407C, R-410A, and R-507A, were being dumped at margins ranging from 101% to 216%.[12] This time, the USITC found that the domestic industry had been materially injured by the unfairly trade imports,[13] and Commerce issued an antidumping duty order in August 2016.[14] Furthermore, the first administrative review of the *HFC Blends Order* analyzed data submitted by Chinese

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[9] *1,1,1,2-Tetrafluroethane from the People's Republic of China: Final Determination of Sales at Less Than Fair Value,* 79 Fed. Reg. 62,597 (October 20, 2014) ("*2014 R-134a DOC Final*").

[10] *Countervailing Duty Investigation of 1,1,1,2 Tetrafluoroethane from the People's Republic of China: Final Affirmative Countervailing Duty Determination,* 79 Fed. Reg. 62,594 (October 20, 2014).

[11] *See* 1,1,1,2—Tetrafluoroethane From China, Inv. No. 701-TA-509 and 731-TA-1244 (Final), USITC Pub. 4503 (December 2014). Antidumping and countervailing duties may be imposed only if the imports are both unfairly traded and cause or threaten to cause "material injury." *See* 19 U.S.C. §§ 1671 and 1673.

[12] The HFC Blends accounted for over 95 percent of the HFC blends sold in the U.S. market.

[13] *See* 1,1,1,2 -- Tetrafluoroethane (R-134a) from China, Inv. No. 731-TA-1313 (Final), USITC Pub. 4679 (April 2017) ("*2017 R-134a ITC Affirmative Final*").

[14] *Hydrofluorocarbon Blends from China; Antidumping Order,* 81 Fed. Reg. 55,436 (August 19, 2016) ("*HFC Blends Order*").

exporter/producers and found even higher antidumping duty margins: 285.73%.[15] Thus, having penetrated the U.S. market with low-priced imports, Chinese exporter/producers and their U.S. importers maintained their market share by continuing to sell at dumped prices.

In its second investigation of unfairly traded imports of R-134a, Commerce found that Chinese imports were being dumped at margins ranging from 148% to 167% and issued an antidumping order in April 2017.[16]

With antidumping duty orders in place on imports of major HFC blends (R-404A, R-407A, R-407C, R-410A, and R-507A) and R-134a, Chinese producers next began exporting R-32 and R-125, which was then blended by U.S. importers. Commerce commenced an antidumping investigation with respect to Chinese R-32 in 2020, and found antidumping margins ranging from 161% to 221% in March 2021.[17]

Most recently, in February 2021, Commerce initiated antidumping and countervailing duty investigations with respect to R-125, one of two individual HFC components used in HFC blends that was not already subject to antidumping duties.[18] Commerce found sufficient evidence

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[15] *Hydrofluorocarbon Blends from the People's Republic of China: Final Results of the Antidumping Duty Administrative Review and Final Determination of No Shipments*; 2016–2017, 84 Fed. Reg. 17,380 (April 24, 2019).

[16] *R-134a from China; Antidumping Order*, 82 Fed. Reg. 18,422 (April 19, 2017) ("*2017 R-134a Order*"). As noted above, in a previous investigation in 2013, Commerce found that imports of R-134a from China were benefitting from government subsidies and were also being dumped in the U.S. market. However, the USITC found that these unfairly traded imports were not causing material injury to the U.S. industry.

[17] *R-32 from China; Antidumping Duty Order*, 86 Fed. Reg. 13,886 (March 11, 2021) ("*R-32 Order*").

[18] *Pentafluoroethane (R–125) from the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 86 Fed. Reg. 8583 (February 8, 2021) ("*R-125 DOC Initiation*") and *Pentafluoroethane (R–125) from the People's Republic of China: Initiation of Countervailing Duty Investigation*, 86 Fed. Reg. 8589 (February 8, 2021). At this point, confronted with the relentless efforts of Chinese HFC imports to penetrate the U.S. market, all U.S. manufacturers have ceased production of the remaining HFC component: R-143a.

in the petition to support the allegation that Chinese imports were being dumped and subsidized,[19] and the case is ongoing.

These four Commerce antidumping proceedings investigated dumped and subsidized products produced and exported by over 20 producers and exporters. Many of these producers were found to be dumping in multiple investigations, including the original R-134a investigation, the HFC blends investigation, and the later investigations of R-134a and HFC component R-32.[20]

Notably, EPA proposes that entities subject to AD/CVD duties pursuant to Commerce final determinations must document payment of applicable duties or demonstrate exemption from such duties before receiving allocations in 2022 or 2023.[21] AD/CVD duties are paid at the time of importation by the importer of record. Because each importer must file an Entry Summary (CBP Form 7501) that allows identification of applicable AD or CVD cash deposit rate that must be paid, these documents can be readily submitted to EPA by importers seeking allowances. Entry Summaries list the unique 10-digit "AD/CVD No." or "code" that Commerce assigns to each individually examined producer or exporter covered by an antidumping or countervailing duty order.[22] These codes identify the antidumping or countervailing duty deposit

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[19] *R-125 DOC Initiation,* 86 Fed. Reg. at 8586. Commerce recently extended the date for its preliminary determination to August 10, 2021. The final determination should issue 75 days later. *See Pentafluoroethane (R–125) from the People's Republic of China: Postponement of Preliminary Determination in the Less-Than-Fair-Value Investigation*, 86 Fed. Reg. 29,752 (June 3, 2021).

[20] Each individually investigated producer and/or exporter and their resulting margins of dumping or subsidization are stated in tables included in Commerce's published final determinations, orders, and final results of administrative reviews. *See, e.g., HFC Blends Order*, 81 Fed. Reg. 55,436 at 55,438.

[21] *See NPRM,* 86 Fed. Reg. at 27,186 ("EPA is proposing that any entity that is subject to a DoC Final Determination and is requesting allowances for 2022 or 2023 must provide documentation of payment of the AD/CVD for HFC imported in 2017 through the date of this proposed rule, or provide evidence that those imports were not required to pay AD/CVD for those years.").

[22] *See* CBP Entry Summary, *available online at* https://www.cbp.gov/trade/programs-administration/entry-summary/cbp-form-7501, last accessed June 30, 2021. The unique AD/CVD numbers are reported in box 29.B of Form 7501 and take the form "A-570-028-0xx," where the first three digits indicate country of export (here, China), the middle three digits indicate the Commerce order (HFC Blends in this example), and the last three digits are the unique code Commerce assigns to individually examined producers and/or exporters.

rate assigned to examined producers or exporters.[23] At a minimum, each importer seeking an allowance should be required to provide an annual certification, subject to 18 U.S.C. § 1001, that it made required cash deposits with respect to all HFC imports covered by an AD and/or CVD order. EPA would then request copies of the Entry Summaries to verify the certifications.

2. The USITC Repeatedly Found that Chinese HFC Imports Seized Market Share from U.S. Producers Based on Unfairly Low Prices

In the five years from 2016 through 2021—capturing EPA's proposed three-year allowance base period—the USITC repeatedly concluded that unfairly traded imports of HFCs from China seized considerable market share from the U.S. industry. As a result, the production, U.S. sales, and market share of U.S. manufacturers has been depressed at least since 2013-2015, the period of investigation ("POI") covered by the first affirmative injury finding. This imbalance in market share as between U.S. producers and U.S. importers of Chinese-origin HFC blends and HFC components is primarily due to unfairly traded imports and is clearly reflected in the proposed 2017-2019 base period.

In August 2016, in *HFC Blends*, the USITC found that "***[t]he increase of subject imports' market share came almost entirely at the expense of the domestic industry***."[24] In April 2017, the USITC found "because of the elevated level of subject imports, the domestic industry was unable to obtain the market share it achieved in 2014 at any subsequent time during the POI."[25] Two Commissioners went on to find that the alarming surge in imports of unfairly traded R-134a justified a finding of "critical circumstances," saying

> the increase in imports and inventories appears to reflect an effort by Chinese exporters to flood the U.S. market with low-priced R-134a. ***An importer testified that many new entrants were "hell bent" on gaining market share in the United States***. A significant importer, BMP, circulated weekly faxes to purchasers in 2016 touting a large supply of

[23] A producer and/or exporter's duty deposit rate can be changed in annual administrative reviews conducted in accordance with 19 U.S.C. § 1675.

[24] *See Hydrofluorocarbon Blends and Components from China*, Inv. No. 731-TA-1279 (Final), USITC Pub. 4629 (Aug. 2016) ("*2016 HFC Blends ITC Affirmative Final*") at 23 (emphasis added).

[25] *Id.* at 22-23.

> Chinese product at low prices, which likely had an impact on both the automotive and HVAC aftermarket.[26]

In March 2021, the USITC again found that ***"[l]ower-priced imports [of R-32] caused the domestic industry to lose sales and market share to subject imports. Specifically, the domestic industry lost *** percentage points of market share to the subject imports from 2017 to 2019.***"[27] Most recently, in April 2021, the USITC issued an affirmative preliminary injury determination finding that the evidence supported the conclusion that subsidized and dumped imports of R-125 used low prices to gain market share at the expense of the domestic industry, saying, "the volume of subject imports relative to U.S. consumption increased significantly, and subject imports undersold domestic prices to a significant degree in the later portion of the POI. ***The … increase in subject imports' market share from 2017 to 2019 came almost entirely at the expense of the domestic industry***".[28]

In short, over the entire period 2016 to the present, the market share held by various importers of HFC Blends (i.e., R-404A, R-407A, R-407C, R-410A, and R-507A) and HFCs R-32, R-125, and R-134a reflects a pattern of relentless unfair trade and circumvention of the antidumping duty orders covering HFC imports. Sales of such imports, and the share of consumption seized by reason of unfair trade and circumvention, should not be the basis of any award of Consumption Allowances.

B. Almost As Soon As the 2016 and 2017 Antidumping Orders Were Published, Imports from China Began to Circumvent the Law

Following the publication of the antidumping orders on *HFC Blends* and *R-134a*, Chinese exporters and U.S. importers began to circumvent the high duty rates intended to remedy unfair trade. In 2017, Commerce commenced five scope proceedings, including one inquiry requested by CBP, to address imports of HFC Blends and R-134a that were being

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[26] *Id.* at 28 (emphasis added).

[27] *See Difluoromethane (R-32) from China*, Inv. No. 731-TA-1472 (Final), USITC Pub. 5165 (March 2021) ("*2021 R-32 ITC Affirmative Final*") at 27 (emphasis added).

[28] *See Pentafluoroethane (R-125) from China*, Inv. No. 701-TA-662 and 731-TA-1554 (Preliminary), USITC Pub. 5170 (March 2021) ("*2021 R-125 ITC Affirmative Prelim*") at 41 (emphasis added).

blended in third-countries, repackaged prior to importation, or shipped into the United States and reblended after importation in very low cost operations. These scope inquiries were all later conducted under the anti-circumvention provisions of the statute.[29] The circumvention determinations by Commerce illustrate the disrupting tactics used by importers to maintain or increase their U.S. market share by evading the HFC Blends antidumping duty order.

1. Reblended R-421A – Commerce found that specific importers of unpatented R-421A reblended this material in the US to evade the antidumping duty law

The *HFC Blends* antidumping order excluded "patented" blends such as R-421A. BMP International Inc., and its numerous affiliates[30] (collectively, "BMP") imported R-421A but did not have the right to resell the patented product in its imported form; i.e., as R-421A. Instead, BMP added a small amount of another HFC component to the imported R-421A, converting the product into HFC Blends that are subject to the antidumping order (*i.e.*, R-404A, R-407A, and R-407C). That is, rather than reselling the imported R-421A as is, BMP blended the R-421A with another HFC, thus producing a blend that is subject to the order. Commerce found that the minor processing involved in re-blending R-421A, coupled with the value of the Chinese-origin components and the pattern of trade amounted to circumvention of the antidumping duty order.[31]

In particular, Commerce focused its investigation on four U.S. importers affiliated with BMP: L.M. Supply, Inc. ("LM Supply"), Cool Master U.S.A., LLC, BMP USA, Inc., and iGas, Inc.[32] These importers were supplied by T.T. International Co., Ltd ("TTI"), an exporter in China

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[29] *See* 19 U.S.C. §§ 1677j(a), (b).

[30] *See* discussion at Part II.C.1, below.

[31] *Hydrofluorocarbon Blends from the People's Republic of China: Final Scope Ruling on Unpatented R-421A; Affirmative Final Determination of Circumvention of the Antidumping Duty Order for Unpatented R-421A*, 85 Fed. Reg. 34,416 (June 4, 2020) ("*R-421A Affirmative Anti-Circumvention Determination*").

[32] BMP USA is an affiliate of "BMP International Inc.," and is listed in *EPA Production and Consumption Tables,* Tables 3 and 4. Likewise, iGas, Inc., is an affiliate of BMP. *See* discussion at Part II.C, below.

trading in HFCs produced by multiple Chinese producers.[33] Furthermore, two of TTI's producers, Electrochemical Factory of Zhejiang Juhua Co., Ltd. and Zhejiang Quzhou Lianzhou Refrigerants Co., Ltd., are affiliated with BMP through the Juhua Group Corporation ("Juhua Group"). As discussed below, Juhua Group has an ownership interest in BMP affiliate iGas.[34] Finally, Electrochemical Factory of Zhejiang Juhua and Zhejiang Quzhou Lianzhou Refrigerants supplied TTI with R-134a during the July 2015 through December 2015 period of the Commerce R-134a investigation.[35]

In its final anti-circumvention decision, Commerce noted that

> "(1) BMP's investment to blend HFCs in the United States is minimal in comparison to the investment require to create components;
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> "(2) BMP's R&D expenses are negligible;
>
> "(3) the nature of BMP's production process in the United States is not significant;
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> "(4) BMP's production facility for completing finished HFC blends is not extensive; and
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> "(5) the value of processing performed in the United States represents a small proportion of the value of the merchandise sold in the United States."[36]

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[33] During the respective investigation periods, TTI exported subject HFC Blends (R-404A, R-407A, R-407C, R-410A and R-507A) and subject R-134a produced by three separate Chinese producers, including 1) Zhejiang Sanmei Chemical Ind Co., Ltd.; 2) Sinochem Environmental Protection Chemicals (Taicang) Co., Ltd.; and 3) Zhejiang Zhonglan Refrigeration Technology Co., Ltd. *See HFC Blends Order,* 81 Fed. Reg. at 55,438 and *2017 R-134a Order,* 82 Fed. Reg. at 18423. A fourth producer, Shandong Huaan New Material Co., Ltd., supplied TTI with HFC Blends but not R-134a during the respective POIs. *Id.*

The HFC Blends period of investigation ("POI") covered October 2014 through March 2015 and the R-134a POI covered July 2015 through December 2015.

[34] *See* discussion at Part II.C.2, below.

[35] *See 2017 R-134a Order*, 82 Fed. Reg. at 18423.

[36] *See* Final Decision Memorandum for Scope Ruling and Anti-Circumvention Inquiry of the Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China; Unpatented R-421A at 19-20 (May 28, 2020) (footnoted omitted), included in **Exhibit 1**.

Ultimately, Commerce found that "the nature of BMP's production process in the United States is not significant," and "the evidence placed on the record overwhelmingly supports that the process of assembly or completion is minor or insignificant within the meaning of section 781(a)(1)(C) of the Act…."[37]

2. Indian HFC Blends Containing Chinese HFCs – Commerce found that Indian producers working with U.S. importers blended Chinese origin HFC's in India in order to evade the dumping law

In this inquiry Commerce examined imports of HFC blends from India produced using Chinese R-32 that was shipped to India and then blended with Indian HFC components before re-export to the U.S. When determining that these imports were circumventing the *HFC Blends* order pursuant to 19 U.S.C. § 1677j(b), Commerce found that merely blending HFC components in India involved minor, comparatively low-cost processing operations and the value of the Chinese imports accounted for a significant portion of the value of the finished product ultimately exported to the United States.[38] As such, the mere blending of Chinese components in a third country (here India) was insufficient to change the Chinese origin of the resulting HFC blend for purposes of the antidumping law.[39]

Commerce singled out several Indian companies engaged in blending the Chinese-origin HFCs, including Gujarat Fluorochemicals Ltd. ("GFL"), SRF Limited ("SRF"), and Coolmate

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[37] *Id.* at 22, 23.

[38] *Hydrofluorocarbon Blends from the People's Republic of China: Final Negative Scope Ruling on Gujarat Fluorochemicals Ltd.'s R-410A Blend; Affirmative Final Determination of Circumvention of the Antidumping Duty Order by Indian Blends Containing Chinese Components*, 85 Fed. Reg. 61,930 (Oct. 1, 2020) ("*Indian Blends Affirmative Circumvention Final*").

[39] *See* Preliminary Decision Memorandum for Scope Ruling and Anti-Circumvention Inquiry of the Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China: Indian Blends (April 3, 2020) at Part XIII) (pages 15 -25) (unchanged in final determination). This document is available to the public on the International Trade Administration's Centralized Electronic Service System, known as "ACCESS" (hereafter "ITA ACCESS"). ITA ACCESS is available at https://access.trade.gov/login.aspx.

Refrigerant Pvt. Ltd. ("Coolmate").[40] These producer/exporters were then shipping the finished HFC blends to five specifically identified importers in the United States: Altair Partners, LP,[41] Dynatemp International,[42] GFL Americas, LLC ,[43] Kivlan & Company, Inc., and Mondy Global, Inc.[44]

Following this determination, U.S. importers of HFC blends exported from India are subject to 216.37% antidumping duties unless the importer certifies to CBP upon entry that no Chinese origin components were used in the imported blend.[45]

3. Unfinished HFC Blends – Commerce found that imports of "unfinished" blends of R-32 and R-125, which were then reblended in the United States into a blend covered by the antidumping order, were circumventing the order.

Acting on an allegation that the antidumping order was being violated pursuant to the EAPA,[46] CBP requested Commerce to provide a ruling whether imports of R-32 and R-125 were covered by the *HFC Blends* antidumping duty order. When blended in 50/50 proportions, R-32 and R-125 become R-410A.[47] In this case, the imported products were not quite blended to 50/50 proportions. Instead, after importation, a small amount of additional HFC component was added to the "unfinished" blend to bring it into compliance with the ASHRAE definition of a subject HFC blend—and thus within the scope of the *HFC Blends Order*. Applying the statute and using

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[40] Coolmate refused to participate in the proceeding and was thus denied eligibility for participating in the import certification regime adopted in this proceeding. *Indian Blends Affirmative Circumvention Final* at 61,932.

[41] Altair is listed in *EPA Production and Consumption Tables* at Table 4.

[42] Dynatemp is not listed in *EPA Production and Consumption Tables.*

[43] GFL Americas is not listed in *EPA Production and Consumption* Tables.

[44] *See* **Exhibit 2** Gujarat Fluorochemicals Limited ("GFL") Quantity & Value Questionnaire Response (November 15, 2019) (public version) at Attachment II-B, submitted in the Indian Blends anti-circumvention inquiry. Kivlan and Mondy are listed in *EPA Production and Consumption Tables* at Table 4.

[45] *Indian Blends Circumvention Final*, 85 Fed. Reg. at 61,933. Commerce requires these certificates to be placed on the record of relevant Commerce antidumping proceedings.

[46] The Enforce and Protect Act of 2015, 19 U.S.C. §1517 ("EAPA").

[47] *See* AHRI Standard 700, Table 2A.

"facts available" because certain parties failed to provide responsive information, Commerce found that the value added in the United States was not significant, that the value of the Chinese content was a significant portion of the total value of the finished product, and the blending in the United States amounted to only minor processing.[48]

Commerce identified several companies in its preliminary determination, including U.S. importer Weitron Inc. ("Weitron") and its affiliated Chinese exporter/producer Weitron International Refrigeration Equipment (Kunshan) Co., Ltd. ("Weitron Kunshan").[49]

In its final determination, Commerce required all importers "of partially finished R-32/R-125 blends produced in China" to pay cash deposits of up to 216.37%.[50]

4. Transshipment through Hong Kong, Jamaica, Panama, and South Korea - Importers have mislabeled and falsely identified the origin of HFCs from China to evade the antidumping orders by transshipping through third countries.

Following the imposition of antidumping duties on HFC blends and R-134a, the domestic industry began to identify numerous cases in which Chinese HFCs covered by an antidumping order were being imported from third-countries and improperly identified with a country-of-origin other than China. In each case, these imports were reported to CBP. Although the results of CBP's investigations are confidential and did not result in published "circumvention" decisions (as is CBP practice), in each case the pattern of imports stopped after the practice was identified. Examples follow:

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[48] *Hydrofluorocarbon Blends from the People's Republic of China: Affirmative Preliminary Determination of Circumvention of the Antidumping Duty Order; Unfinished R-32/R-125 Blends*, 85 Fed. Reg. 4,632 (January 27, 2020) ("*Unfinished Blends Affirmative Circumvention Prelim*") (unchanged in final *Hydrofluorocarbon Blends from the People's Republic of China: Affirmative Final Determination of Circumvention of the Antidumping Duty Order; Unfinished R-32/R-125 Blends*, 85 Fed. Reg. 15,428 (March 18, 2020) ("*Unfinished Blends Affirmative Circumvention Final*").

[49] *Unfinished Blends Affirmative Circumvention Prelim,* 85 Fed. Reg. at 4,634. The U.S. importer (Weitron) is listed in *EPA Production and Consumption Tables* at Table 4.

[50] *Unfinished Blends Affirmative Circumvention Prelim*, 85 Fed. Reg. at 4,633 (unchanged in final).

- In 2016-2017, BMP affiliate LM Supply, Inc. was transshipping Chinese origin R-134a through Jamaica.[51] These imports were reported to CBP. Although the details of CBP's investigation are confidential, the transshipments subsequently stopped.

- In early 2017, iCool Inc.[52] was transshipping Chinese HFCs through Panama and Hong Kong. These imports were reported to CBP. Although the details of CBP's investigation are confidential, the transshipments subsequently stopped.

- In mid-2018, Carquest was importing Chinese R-134a in box cartons shipped from South Korea and stamped "made in Korea." When the boxes were opened, the cylinders were marked "made in China." These imports were reported to CBP and subsequently removed from the market.[53]

- Pursuing an "e-allegation," filed by the HFC Coalition, CBP investigated the country of origin claimed by Puremann, Inc.,[54] with respect to imports of R-134a from Korea. Although the details are confidential, Puremann subsequently revised the marking on its cylinders to state that the R-134a was "processed in Korea from imported materials. A discussion of Puremann's circumvention (via transshipment through Korea) is provided in Part II.C.2.i, below.

In Part VIII.B.3 of the *NPRM,* EPA proposes formal consultations with CBP to address possible non-compliance with payment of AD/CVD duties by importers of record.[55] Specifically, where there is non-payment of AD/CVD, use of improper Harmonized Tariff Schedule ("HTS") classifications, or other duty evasion, EPA contemplates "discretion to revoke, retire or withhold allowances."[56] EPA should consult with CBP to ensure LM Supply, Inc. iCool, Inc., Puremann, Inc. (indeed ***all*** BMP affiliates), and Carquest Corporation are 1) complying with special duty

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[51] *See* **Exhibit** 3 (ships' manifest data showing BMP/LM Supply imports of R-134a transshipped through "Jamaica").

[52] iCool Inc is listed in *EPA Production and Consumption Tables* at Table 4.

[53] *See* **Exhibit 4** (photographs of the imported R-134a where the packaging is marked "made in Korea" while the enclosed cylinder marked "made in China").

[54] Puremann is not listed by name in *EPA Production and Consumption Tables* but its affiliate "BMP International Inc." is listed in Tables 3 and 4.

[55] *See NPRM,* 86 Fed. Reg. at 27,186.

[56] *Id.*

liability under Commerce hydrofluorocarbon orders,[57] 2) properly reporting HTS classifications in accordance with 19 U.S.C. § 1484, and 3) properly declaring country of origin in accordance with by 19 U.S.C. § 1304.

C. Certain Importers Have Persistently Attempted to Evade or Circumvent the Antidumping Duty Orders

1. Since late 2016, BMP and numerous affiliated companies owned by Ben Meng actively engaged in circumvention of the antidumping law.

The president and owner of BMP International Inc. is Xianbin (Ben) Meng.[58] Recent Commerce anti-circumvention proceedings found that Ben Meng established nineteen or more affiliated entities, many of which are and have been engaged in importing Chinese origin HFC products. In the HFC Components anti-circumvention inquiry Commerce found "BMP has consistently shifted importers for its imports of HFC components."[59] Commerce noted further that "BMP's Q&V questionnaire response shows that between August 2016 and June 2019, BMP used at least four affiliated importers to import HFC components from China, … ."[60] This strategy appears to have been adopted to avoid eventual payment of cash deposits and duties of 216%. Indeed, Commerce concluded, "[t]hus, BMP's patterns of trade clearly shifted to avoid the duties placed upon HFC blends with the enactment of the [HFC Blends] Order."[61] The lead

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[57] The orders presently include HFC Blends (A-570-028), R-134a (A-570-044) and R-32 (A-570-121).

[58] This relationship is disclosed in public company factual information certifications Ben Meng filed at Commerce, in accordance with 19 C.F.R. § 351.303(g). Examples are included in **Exhibit 5,** where Ben Meng is reported the owner of the BMP International and numerous BMP affiliates. *See also,* Florida Department of State corporate registration documents provided at **Exhibit 8.A** where Ben Meng is listed as officer and registered agent for numerous affiliates, including BMP USA and BMP Refrigerants, iGas, and LM Supply.

[59] *See* Commerce memorandum: Anti-Circumvention Inquiry of Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China – HFC Components: Business Proprietary Memorandum for BMP (April 3, 2020) ("*Commerce Memoranda on BMP*") (public version) at 8 (issued at preliminary determination). Excerpt included at **Exhibit 6**.

[60] *Id.*

[61] *Id.* at 9.

companies are BMP International, Inc. and iGas, Inc. Nineteen BMP/iGas affiliates acknowledged by BMP and identified by Commerce include:[62]

- 7680 Paradise Point LLC
- 8105 Anderson LLC
- 8900 Armenia LLC
- AC Tampa Bay, Inc.
- Assured Comfort A/C Inc.
- BMP International, Inc.
- BMP Refrigerants Inc.
- BMP USA Inc.
- Cool Master U.S.A., L.L.C.
- E.T.S. of Tampa Bay, Inc.
- iGas USA Inc.
- iGas, Inc.
- L.M. Supply, Inc. (aka LMJ Supply, Inc.)
- MasterJ LLC
- MS Fund LLC
- Organic Apple, LLC
- Organic Orange, L.L.C.
- U.S. Ladder, Inc.
- U.S. Metal of Tampa, Inc.

As discussed below, Commerce has also found Ben Meng entity iGas USA to be affiliated with Chinese HFC producers within the Juhua Group, based on Juhua's ownership interest in iGas.[63]

Datamyne import statistics and bills of lading also identify Puremann, Inc., and Golden G Imports LLC,[64] as importers of HFCs. These importers are likewise affiliated with BMP and iGas. For example, Puremann Inc. ("Puremann," also known as "Pure Manna"), another U.S.

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[62] BMP acknowledged affiliation between and among all of these 19 entities in a public submission made on the record of the Unpatented R-421A anti-circumvention inquiry. *See* **Exhibit 5** BMP and Affiliates Quantity and Value Questionnaire Response (November 21, 2019) (public version), submitted Unpatented R-421A anti-circumvention inquiry.

[63] *See* **Exhibit 6**, Commerce *Memoranda on BMP* at 9. Commerce also found that Juhua is a state-owned Chinese entity. *See, infra,* Section C(2).

[64] *See* **Exhibit 7** (Datamyne bills of lading and Florida corporate registration documents concerning Golden G, which are discussed below).

importer of HFC components, appears to be affiliated with the BMP group through relationships with BMP affiliates iGas and Cool Master, as follows. *First*, the registered agent for iGas, Inc. is "Xianbin Meng," the owner and President of BMP.[65] In publicly available Bills of Lading, Puremann identifies "Ben Men [sic]" as the "person in charge" for U.S. imports of R-134a and reports its U.S. address to be "4912 W. Knox St. Tampa, Florida 33634."[66] *Second*, Cool Master is an undisputed affiliate of iGas and BMP, as noted above. Photographs of Cool Master canisters containing R-134a that were "processed in Korea" contain Puremann's address and contact information, including the Knox Street, Tampa address.[67] *Third*, Puremann's Korean affiliate is "the only Korean company which is registered and producing" R-134a in Korea.[68] This evidence indicates that Puremann and Cool Master, iGas and BMP are affiliated, and that Ben Meng owns or controls all of these entities.

Concerning Golden G Imports, this is a Florida limited liability corporation that was formed on April 29, 2019.[69] *First,* as shown on bills of lading obtained through Datamyne, however, Golden G was designated as consignee on U.S. shipments of hydrofluorocarbons from China that were scheduled to arrive in the United States nine and two days, respectively, ***prior*** to its formation (April 20, 2019 and April 27, 2019). These shipments actually arrived nine and eleven days after formation, on May 5 and 7, 2019. This timing indicates Golden G was formed to replace the importer of record on pre-existing orders. *Second,* both of these entries were made pursuant to purchase orders with the prefix "IGAS."[70] As discussed in Part II.B.I, above, iGas is

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[65] *See* **Exhibit 8.A** (Florida Division of Corporations registration for iGas and BMP et al.).

[66] *See* **Exhibit 8.B** (Import Bill of Lading from Panjiva.com showing Puremann Tampa address, "Person in charge Ben Men [sic]").

[67] *See* **Exhibit 8.C** (Photograph of Cool Master R-134a cannister (Puremann) and purchase receipt)

[68] *See* **Exhibit 8.D** for the Puremann Inc. "Company Introduction" provided on "Gobiz Korea." Gobiz Korea is operated by the Small & Medium Business Corporation, which is a "non-profit, government-funded organization established to implement government policies and programs for the sound growth and development of Korean [small and medium enterprises]." *See* https://www.cbinsights.com/investor/small-medium-business-corporation.

[69] *See* **Exhibit 7 (**articles of incorporation).

[70] *See* **Exhibit 7 (**Datamyne bills of lading).

a U.S. importer and is one of the many BMP/Ben Meng affiliates. *Finally,* as shown in **Exhibit 8.A**, iGas was operating by at least August 2018. These facts appear to show that Golden G was formed to handle US entries that originally were to be made by iGas.

2. BMP's Acknowledged Affiliate iGas is Affiliated with Chinese HFC Producer the Juhua Group

iGas, Inc. is a corporation registered in Florida that imports HFC components R-32, R-125, and R-143a produced in China.[71] In filings made to Commerce, iGas acknowledged affiliation with Cool Master U.S.A., LLC; BMP International, Inc.; BMP Refrigerants Inc.; and BMP USA Inc.[72]

iGas is also affiliated with the Juhua Group Corporation ("Juhua Group") a Chinese entity and HFC producer Commerce previously found to be controlled by the Chinese national government. Specifically, in the 2014 R-134a investigation Commerce determined the Juhua Group to be "a 100 percent SASAC owned entity."[73] According to the Chinese central government, "SASAC" references the "State-owned Assets Supervision and Administration Commission," which is "an institution directly under the management of the State Council. It is an ad-hoc ministerial-level organization directly subordinated to the State Council. The Party Committee of SASAC performs the responsibilities mandated by the Central Committee of the

[71] *See* **Exhibit 8.E.** BMP, Cool Master, iGas Quantity and Value Questionnaire Response (November 12, 2019) (public version submitted in the HFC Components anti-circumvention inquiry) where iGas reports, "IGAS USA imports R-32, R125 and R143A produced in China. IGAS USA also blends these components into HFC blends such as R410A, R404A, R407A, R407C, R507. IGAS USA sells these HFC blends to distributors in the United States." The exhibit includes an excerpt covering BMP Int'l, BMP USA, Cool Master, and iGas USA).

[72] *Id***.** S*ee also* **Exhibit 8.A**.

[73] *See 1,1,1,2-Tetrafluroethane From the People's Republic of China: Final Determination of Sales at Less Than Fair Value*, 79 Fed. Reg. 62597 (Oct. 20, 2014), IDM at Comment 1 (page 9).

Chinese Communist Party."[74] As such, Commerce deemed the Juhua Group a Chinese state-owned enterprise.

Zhejiang Juhua Co., Ltd. ("Zhejiang Juhua"), a subsidiary of the Juhua Group, is a Chinese company that produces HFC components and HFC blends, including R-134a, R-32, R-125, and R-410a.[75] In its 2018 annual report, Zhejiang Juhua confirms that: (1) it made substantial investments in iGas USA, Inc.,[76] (2) refers to iGas as a "joint venture or associated enterprise" or "related party,"[77] and (3) had substantial transactions with iGas.[78]

Finally, Commerce found at least three Chinese HFC producers affiliated with the Juhua Group, and in turn iGas, BMP and the BMP affiliates, were dumping R-134a in the 2017 R-134a investigation. The producers are Electrochemical Factory of Zhejiang Juhua Co., Ltd.; Zhejiang Quzhou Lianzhou Refrigerants Co., Ltd.; and Zhejiang Organic Fluor-Chemistry Plant, Zhejiang Juhua Co., Ltd.[79] Two of these plants, Electrochemical Factory of Zhejiang and Zhejiang Quzhou Lianzhou, supplied Chinese exporter TTI, which is frequently the Chinese exporter on transactions involving HFC imports by BMP and its affiliates.[80]

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[74] *See* http://en.sasac.gov.cn/ for a discussion of SASAC.

[75] *See* **Exhibit 8.F** Juhua Group's Section D Questionnaire Response (March 10, 2014) (public version) (excerpt) at D-2 – D-3, submitted in antidumping duty Investigation of 1,1,1,2 Tetrafluoroethane from China. *See also* **Exhibit 8.G** (Zhejiang Juhua's 2018 Annual Report at 6 (excerpt)).

[76] *See* **Exhibit 8.G** (Juhua 2018 Annual Report at 58-59, reporting a roughly $1.6 million investment in iGas and explaining that iGas is engaged in the "Production, procurement, mixing, storage, transportation, and sales of refrigerants and related products.").

[77] *Id.* (Excerpt of Juhua 2018 Annual Report at 209, 211, 216 (excerpt)).

[78] *Id.* (Excerpt of Juhua 2018 Annual Report at 211-212, 216-217 (excerpt)).

[79] *See 1,1,1,2 Tetrafluoroethane (R–134a) From the People's Republic of China: Final Determination of Sales at Less Than Fair Value and Affirmative Determination of Critical Circumstances, in Part*, 82 Fed. Reg. 12192, 12193-94 (March 1, 2017).

[80] *See* discussion at Part II.B.1, above.

The BMP, iGas, and their affiliates are thus supplied by and affiliated with the Juhua Group and Zhejiang Juhua. In other words, their imports of HFCs and the pattern of relentless market penetration through the use of two dozen affiliates reflects the underlying strategy of a Chinese state-owned enterprise to seize market share in the United States. EPA must not reward Juhua by assigning its importers Consumption Allowances.

3. Circumvention Through Transshipment

i. *Puremann Transshipment through S. Korea*

More recently, BMP affiliate Puremann, Inc., has begun shipping HFCs from Korea without payment of antidumping duties.[81] Puremann does not have HFC ***production*** capability in Korea. Photographs provide in **Exhibit 9** show a blending facility, not an HFC production facility. Having initially mismarked its products "made in Korea,"[82] Puremann more recently has changed that marking to "processed in Korea from imported materials."[83] (Discussed in more detail below.) Nevertheless, Korean import and export statistics show that the "imported" HFCs used in any processing by Puremann must have originated in China.[84]

Importantly, Puremann did not post antidumping duty cash deposits with respect to any importations of the mismarked "made in Korea" HFCs. For example, although ships' manifest

[81] As shown in **Exhibit 9** (prints from Puremann website showing the facility, Korean address, and products), Puremann operates a small blending facility at 332-13, Maehwagooin-Ro, Jangan-myeon Boeun-gun 376-841, Chungcheonbuk-do 28916 S. Korea. As shown in **Exhibit 10** (photograph of Puremann packaging for 30 lb. cylinder labeled "Processed in Korea from imported materials"), products sold in the United States give a U.S. address of 4912 W. Knox St. Tampa, Florida 33634 and more recently report processing using non-Korean origin raw materials.

[82] *See* **Exhibit 11** (photographs of BMP cannisters showing "Made in Korea" and later changed to "Product of Korea and USA")

[83] *See* **Exhibit 10** *See also***, Exhibit 8.C** (photograph of recently purchased Puremann 12 ounce cannister of R-134a showing "Processed in Korea from imported materials")

[84] These data are included in **Exhibit 12** (Korean import and export data).

data show that Puremann had imports of R-134a in 2019-2020,[85] a Commerce administrative review of this period established that Puremann did not post anti-dumping duty deposits with respect to these imports. Indeed, the CBP import data do not even include any Puremann imports.[86] Because Puremann refused to file a response to the separate rates application[87] Commerce found that any imports of Chinese R-134a by Puremann would be subject to a 167.02% antidumping duty.[88]

Photographs of the Puremann facility in South Korea show that it lacks any equipment necessary for actual *production* of hydrofluorocarbon gases.[89] At best, its facility can transfer HFCs from ISO tanks (outside the building) to smaller 30 lb. cylinders or blend separate HFC components imported in ISO tanks into an HFC blend.[90] Indeed, on a page of "Gobiz Korea," a website supported by the Korean government, Puremann admits:

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[85] **Exhibit 13** (ships' manifest data including Puremann imports). Note that the official Census Bureau import statistics for this period show imports of R-134a from Korea even though no R-134a was produced in Korea during that time.

[86] *1, 1, 1,2-Tetrafluoroethane (R-134a) from the People's Republic of China: Preliminary Results of Antidumping Duty Administrative Review; 2019-2020*, 86 Fed. Reg. 7854 (February 2, 2021) ("On July 16, 2020, Commerce placed U.S. Customs and Border Protection (CBP) data on the record of this review demonstrating that there were no entries of subject merchandise during the POR"). "No entries" of "subject merchandise," means that there were no imports by Puremann identified as R-134a from China and for which antidumping duties were paid.

[87] A separate rates application (or "SRA") is a responsive submission made by exporters and/or producers that is used by Commerce to determine whether the submitting party is controlled by the government of China. Because Puremann is believed to have offices in only the United States (Tampa) and Korea it should have been an easy matter to prepare and submit an SRA.

[88] *11,1,2-Tetrafluoroethane (R-134a) from the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2019-2020*, 86 Fed. Reg. 30404 (June 8, 2021).

[89] *See* **Exhibit 14** for Puremann marketing materials showing images of Puremann's facility. As shown Puremann does not operate a chemical plant able to manufacture HFCs. Its equipment is sufficient only to fill cylinders or blend HFC components and fill cylinders.

[90] Following the principles laid down in the Commerce anticircumvention finding in *India Blends*, blending China HFC components in South Korea would not remove the finished HFC blend from the antidumping duty order. *Indian Blends Affirmative Circumvention Final,* 85 Fed. Reg. at 61,932 ("We determine that exports to the United States of certain HFC blends containing HFC components from India and China that are blended in India prior to importation into the United States, …, are circumventing the Order.").

> PureMann Inc, is the only Korean company which is registered and producing ecofriendly refrigerant gases like R134a, R410A and so on. … ***But we import raw materials from China or India and produce high quality refrigerant gases in Korea factory through an automative [sic] refining and mixing process***.[91]

Because there is no manufacturing capacity for R-134a in Korea, the "made in Korea" cylinders were mismarked in violation of 19 U.S.C. § 1304. Thereafter, Puremann changed its labels to "processed in Korea from imported materials."[92] However, this label continues to violate U.S. marking law because it fails to disclose the country of origin of the materials as required by 19 U.S.C. § 1304 and 19 CFR § 134.11.

In short, Puremann, yet another affiliate of BMP, is only the latest example of the pattern of circumvention, mismarking, transshipment, and evasion that has been pursued since the HFC antidumping duty orders were published. From simple efforts to evade duties, such as the cardboard packaging marked "made in Korea" to cover "made in China" cylinders, to reblending patented HFC blends in order to circumvent the antidumping duty order, duty evasion has taken many forms and has involved many different strategies.

ii. *iCool Transshipment through Hong Kong*

As discussed above, in early 2017, iCool Inc. was found to be transshipping Chinese HFCs through Panama and Hong Kong and the activity was reported to CBP. Although the details of CBP's investigation are confidential and thus cannot be cited here, the transshipments subsequently stopped so CBP intervention is presumed to have occurred.

iCool USA Inc. is listed in *EPA Production and Consumption Tables* at Table 4 and thus appears to seek a consumption allowance. ***Before*** awarding any allowance to this importer, however, EPA should require a full disclosure by iCool of ***all*** CBP findings concerning transshipment of HFC blends and/or components. If iCool refuses to provide the disclosure or

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[91] *See* **Exhibit 8.D (**Gobiz Korea).

[92] *See* **Exhibit 8.C** (the can of Coolmaster coolant was purchased November 15, 2020 at a Home Depot located in Pennsylvania).

the disclosure demonstrates that iCool market share was gained through transshipment, iCool should be denied any consumption allowance.

D. Import Trends Established In Commerce Anti-Circumvention Proceedings Reveal The Importance Of Using An Expanded Period For Allocating Consumption Allowances

The HFC blends anti-circumvention inquiries were initiated in June 2019 and analyzed patterns of trade (i.e., U.S. imports) during the period July 1, 2011 through June 30, 2019.[93] This period captured imports occurring before and after the HFC Blends order was published on August 19, 2016.[94] Additionally, the period examined by Commerce roughly coincides with the 2011 to 2019 period over which EPA collected HFC production, import, and export data.[95] The trend in HFC imports from China is shown in the Figure on page 2, above.

The anti-circumvention statute instructs Commerce to consider "the pattern of trade, including sourcing patterns." *See, e.g.,* 19 U.S.C. § 1677j(a)(3)(A). Here, Commerce typically compares U.S. import levels of merchandise subject to the order before and after the order issues. It is looking for a pattern where importers avoid (circumvent) application of dumping duties by changing the imported product to one not covered by the order. In the case of Indian Blends, for example, importers switched from U.S. imports of Chinese-origin HFC Blends to imports of Chinese HFC components blended in India.

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[93] *See, e.g., Hydrofluorocarbon Blends from the People's Republic of China: Initiation of Anti-Circumvention Inquiry of Antidumping Duty Order; Unpatented R-421A*, 84 Fed. Reg. 28281 (June 18, 2019).

[94] *HFC Blends Order,* 81 Fed. Reg. 55,438.

[95] *See, e.g.,* Quantity and Value Questionnaire for Chinese Producers, Exporters, and U.S. Importers of Unpatented R-421A issued to BMP USA Inc. and Affiliates (October 31, 2019), requiring monthly total quantity and value reporting of shipments (for Chinese exporters and/or producer) or imports (for U.S. importers) of Hydrofluorocarbon blends during the period July 1, 2011 through June 20, 2019. This document is publicly available on ITA ACCESS, at https://access.trade.gov/login.aspx.

Commerce discussed import trends for subject HFC blends (R-404A, R-407A, R-407C, R-410A, and R-507A) in the HFC Components[96] anti-circumvention inquiry saying,

> Record evidence demonstrates that there is a stark change in the pattern of trade since the Order was placed on HFC Blends, as demonstrated by the [record]. From July 2011, through August 2016 (i.e., when the Order took effect), the average monthly exports of HFC components from China to the United States were 529,556 kilograms (Kg). From September 2016, through June 2019, monthly average exports of HFC components from China to the United States ***surged to 2,707,659 Kg; an increase of 411.31 percent***. Likewise, over the same time periods, the monthly average import quantity of HFC components from China into the U.S. increased from 599,875 Kg per month to 2,247,874 Kg per month; ***a 274.72 percent increase***.
>
> [I]mports of HFC blends have decreased dramatically since the imposition of the [HFC Blends] Order. ITC Dataweb data show that, in 2016, a total of 9,874.6 metric tons (MT) of HFC blends classified under HTSUS 3824.78.0020 were imported from China. In 2018, that number dropped to 2,117.7 MT; a 78.55 percent decrease. Therefore, in light of significant record evidence, we preliminarily determine that the data provided on the record are clear, and that the massive decrease in imports of HFC blends into the United States, and corresponding massive increase of imports of HFC components into the United States, represent changes in the patterns of trade.[97]

These data show that advances on U.S. market share gained by imports of dumped HFC Blends—as repeatedly noted by USITC—continued occurring after the *HFC Blends Order* was published in August 2016, based on imports of HFC components used to produce subject HFC Blends after importation. As also discussed above, this continued assault on market share of U.S. producers led to petitions on imports of HFC components R-32 and R-125.

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[96] Although Commerce preliminarily found that these imports were circumventing the antidumping duty order, it ultimately issued a negative final determination in HFC Components Inquiry based on the USITC's concern that an affirmative Commerce finding would conflict with the USITC's original injury determination concerning HFC components.

[97] *See* Preliminary Decision Memorandum for Anti-Circumvention Inquiry of the Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China: HFC Components (April 3, 2020) at 17-18 (emphasis added) (citations omitted).

III. RECOMMENDATIONS

The *NPRM* identifies "potential concerns with allocating allowances to entities that DoC has determined are dumping HFCs onto the U.S. market,"[98] but does not elaborate. The following recommendations suggest two means to allocate allowances, taking into account the distortions in market share caused by unfairly traded imports from China, as well as specific importers that attempted to circumvent the antidumping duty orders issued by Commerce. *First*, EPA should enlarge the period used to allocate consumption allowances to 2011-2019. This will reduce the extent to which U.S. market shares are distorted by the effects of extensive and continued imports of unfairly traded Chinese HFCs. *Second*, EPA should not allocate any consumption allowance to individual importers, and their affiliates, that have been specifically identified in final anti-circumvention rulings by Commerce.

A. Using 2011-2019 as the Allocation Period Reduces the Impact of Unfairly Traded Imports on Consumption Allowances

To ensure consumption allowances are not based on market share gains achieved by virtue of China's unfair trade practices, EPA should (1) use the full 2011-2019 period as the basis for Consumption Allowances, and (2) adopt an average market share approach to calculate the allocations.

First, EPA must not adopt an allocation period that is based on market penetration achieved by dumping and by circumvention of the anti-dumping orders. Rather, EPA's allocation period at a minimum should include the full 2011-2019 period, reflecting that the U.S. manufacturers of HFC products held a larger share of the U.S. market before the surge in unfairly traded imports that triggered the HFC Blends and R-134a investigations. Adopting this enlarged period partially addresses the severe impact of unfairly traded imports repeatedly identified by the USITC, as discussed above. Indeed, use of only the maximum year in the 2017-2019 period (as EPA proposed) enshrines and rewards importers and Chinese producers for dumping and, worse, particularly rewards importers that achieved a relatively larger market share in a single year by circumventing the antidumping duty orders.

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[98] *NPRM*, 86 Fed. Reg. at 27,186.

Second, to ensure that allowances are not skewed toward U.S. importers of dumped and subsidized Chinese imports, EPA should base allowances on "each company's highest market share instead of highest production and consumption level," as envisioned in the *NPRM*.[99] Given that Chinese imports of HFCs increased over the 2011-2019 period, using annual production and consumption volumes to calculate allowances will inherently award higher Consumption Allowances to those U.S. importers that relied on dumped Chinese imports. Instead, EPA should base the allowances on annual market share, not the total quantity produced or sold.

Third, to fairly reflect that some market participants achieved a short-term surge in imports by circumventing the antidumping duty orders, the market share used to allocate allowances should be based on a three-year average. That is, the allowance should be calculated using each entity's market share during its three highest years of production and consumption within the 2011-2019 period. The highest three years need not be consecutive. This figure would be weighted by EVe as the basis for determining allowance allocations for "active" producers and importers.

As discussed above the USITC found "[t]he [2013-2015] increase of subject imports' market share came almost entirely at the expense of the domestic industry."[100] In the 2017 R-134a investigation, the USITC again found "the increase in imports and inventories appears to reflect an effort by Chinese exporters to flood the U.S. market with low-priced R-134a.[101] In the 2021 R-32 investigation covering the period 2017-2019 and January to September 2020, USITC yet again found "[l]ower-priced imports caused the domestic industry to lose sales and market share to subject imports."[102] These findings by the International Trade Commission establish that U.S. importers of Chinese origin HFC Blends and HFC components R-32 and R-125 gained U.S. market share through unfairly traded imports. To address this unfair trade, EPA's allocation period should at a minimum include the market shares held by U.S. producers before the findings

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[99] *See NPRM*, 86 Fed. Reg. at 27,171, n.48.

[100] *See 2016 HFC Blends ITC Affirmative Final* at 23.

[101] *See 2017 R-134a ITC Affirmative Final* at 28.

[102] *See 2021 R-32 ITC Affirmative Final* at 27.

of dumping were issued. Any allocation based on 2017-2019 will simply reward importers for their sales of dumped Chinese HFC products.

B. U.S. Importers Found to be Circumventing the HFC Blends Order and/or the R-134a Order Should Not be Awarded Consumption Allowances Based on such Circumvention Activity

As noted above, EPA should require "any entity that is subject to a DoC Final Determination and is requesting allowances for 2022 or 2023 [to] provide documentation of payment of the AD/CVD for HFC imported in 2017 through the date of this proposed rule, or provide evidence that those imports were not required to pay AD/CVD for those years."[103] Entry Summaries provide the necessary documentation and can be submitted with the application for a consumption allowance or maintained by the company and subject to audit by EPA.

However, certain importers should not be granted allowances at all. Commerce has issued formal determinations that certain U.S. importers of various hydrofluorocarbon products were circumventing the *HFC Blends Order*, in violation of the "anti-circumvention" statute. *See* 19 U.S.C. § 1677j. These specifically identified importers should not be awarded consumption allowances, because their share of the U.S. HFC market was initially established through the sale of unfairly traded (i.e., dumped) imports and then that share was maintained based on circumvention of the antidumping duty orders issued by Commerce. Accordingly, Commerce company-specific determinations of circumvention warrant action by EPA when awarding consumption allowances to these same companies.

Included in **Exhibit 15** (part I) are U.S. importers specifically identified by Commerce in three affirmative anti-circumvention inquiries completed in 2020, including *Reblended R-421A*, *Indian HFC Blends Containing Chinese HFCs*, and *Unfinished HFC Blends*. Many of these importers are found in Table 4 of the *EPA Production and Consumption Tables* and such importers are highlighted with an asterisk. Additionally, because these comments demonstrate both that BMP affiliate Puremann has gained market share through transshipment of Chinese origin R-134a through South Korea and that Puremann has refused to allow Commerce to review

[103] *NPRM*, 86 Fed. Reg. at 27,186.

its entries of to establish margins of dumping, it too should be denied any Consumption Allowance.

Likewise EPA should consult with CBP to ensure that importers included in **Exhibit 15 (part II)** with histories of transshipment or non-compliance with country of origin requirements are no longer improperly avoiding Commerce duty liability.

* * * * *

Exhibit 1

UNITED STATES DEPARTMENT OF COMMERCE
International Trade Administration
Washington, D.C. 20230

A-570-028
CIRC - Unpatented R-421A
Public Document
E&C OII: MR

May 28, 2020

MEMORANDUM TO: Joseph Laroski
Deputy Assistant Secretary
for Policy and Negotiations

FROM: James Maeder
Deputy Assistant Secretary
for Antidumping and Countervailing Duty Operations

SUBJECT: Final Decision Memorandum for Scope Ruling and Anti-Circumvention Inquiry of the Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China; Unpatented R-421A

I. SUMMARY

We have analyzed the case and rebuttal briefs of interested parties in the anticircumvention inquiry of the antidumping duty order on hydrofluorocarbon blends (HFCs) from the People's Republic of China (China).[1] We have not departed from our conclusions in the *Preliminary Determination*.[2] We recommend that you approve the positions described in the "Discussion of the Issues" section of this Issues and Decision Memorandum. Below is the complete list of the issues in this anticircumvention inquiry for which we received comments and rebuttal comments from interested parties:

Comment 1:	Preliminary Scope Ruling
Comment 2:	Whether the Process of Assembly or Completion of R-421A Into HFC Blends in the United States is Minor and Insignificant
Comment 3:	Value Analysis
Comment 4:	Use of Surrogate Values to Value Material Inputs
Comment 5:	Certification Requirements

[1] *See Hydrofluorocarbon Blends from the People's Republic of China: Antidumping Duty Order*, 81 FR 55436 (August 19, 2016) (*Order*).
[2] *See Hydrofluorocarbon Blends from the People's Republic of China: Scope Ruling on Unpatented R-421A; Affirmative Preliminary Determination of Circumvention of the Antidumping Duty Order for Unpatented R-421A; and Extension of Time Limit for Final Determination*, 85 FR 12512 (March 3, 2020) (*Preliminary Determination*), and accompanying Preliminary Decision Memorandum (PDM).

II. BACKGROUND

On June 18, 2020, the Department of Commerce (Commerce) published the *Preliminary Determination* in the *Federal Register*. In accordance with 19 CFR 351.309, we invited parties to comment on our *Preliminary Determination*. On March 17, 2020, the HFC Coalition (the petitioners), BMP[3] and Choice Refrigerants (Choice) filed case briefs.[4] On March 27, 2020, the petitioners, BMP and Choice filed rebuttal briefs.[5] On April 9, 2020, we held a phone call in lieu of a hearing with Choice, to discuss issues that Choice raised in its case brief.[6]

III. MERCHANDISE SUBJECT TO THE SCOPE AND ANTI-CIRCUMVENTION INQUIRY

The scope and anti-circumvention inquiry cover imports of unpatented R-421A, a blend of HFC components R-125 and R-134a,[7] from China. As part of the anti-circumvention inquiry, the petitioners alleged that the unpatented R-421A – which is not subject to the exclusion for patented R-421A – is being further-processed in the United States to create HFC blends that are subject to the *Order*.[8]

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[3] LM Supply Inc., Cool Master USA, LLC, and their affiliated blenders, BMP USA Inc. and IGas Inc. (collectively, BMP).

[4] *See* Petitioners' Case Brief, "Hydrofluorocarbon Blends from the People's Republic of China: Case Brief and Request for a Hearing," dated March 17, 2020 (Petitioners' Case Brief); *see also* BMP's Case Brief, "Hydrofluorocarbon Blends from the People's Republic of China: Case Brief," dated March 17, 2020 (BMP's Case Brief); and Choice's Case Brief, "Hydrofluorocarbon Blends from the People's Republic of China: Scope Ruling on Unpatented R-421A; Affirmative Preliminary Determination of Circumvention of the Antidumping Duty Order for Unpatented R-421A," dated March 16, 2020 (Choice's Case Brief).

[5] *See* Petitioners' Rebuttal Brief, "Hydrofluorocarbon Blends from the People's Republic of China: Rebuttal Brief," dated March 27, 2020 (Petitioners' Rebuttal Brief); *see also* BMP's Rebuttal Brief, "Hydrofluorocarbon Blends from the People's Republic of China: Rebuttal Case Brief," dated March 27, 2020 (BMP's Rebuttal Brief), and Choice's Rebuttal Brief, "Hydrofluorocarbon Blends from the People's Republic of China: Scope Ruling on Unpatented R-421A; Affirmative Preliminary Determination of Circumvention of the Antidumping Duty Order for Unpatented R-421A," dated April 3, 2020 (Choice's Rebuttal Brief). Choice timely filed its rebuttal brief on March 27, 2020. However, due to the inclusion of a new argument raised in its rebuttal brief, Commerce rejected Choice's rebuttal brief and requested that it re-file the rebuttal brief omitting the untimely new argument. *See* Commerce's Letter, "Hydrofluorocarbon Blends from the People's Republic of China Unpatented R-421A Anti-Circumvention Inquiry: Rejection of Rebuttal Brief," dated April 2, 2020. Also, on April 6, 2020, Choice filed comments requesting that Commerce reject BMP's rebuttal brief because it maintained that it included new affirmative arguments. On April 7, 2020, we responded to Choice's comments in a letter and determined not to reject BMP's rebuttal brief. *See* Commerce's Letter, "Hydrofluorocarbon Blends from the People's Republic of China Unpatented R-421A Anti-Circumvention Inquiry: Response to Request by Choice Refrigerants to Reject Certain Rebuttal Arguments from the Anti-Circumvention Record," dated April 7, 2020.

[6] *See* Memorandum, "Ex Parte Phone Call with Choice Refrigerants," dated April 10, 2020. Other than Choice, only the petitioners had requested a hearing, and they subsequently withdrew their request, on April 3, 2020. Because no other party requested a hearing, we did not hold a hearing.

[7] R-125 is also known as Pentafluoroethane, and R-134a is also known as 1,1,1,2-Tetrafluoroethane.

[8] The *Order* covers five HFC blends (*i.e.*, R-404A, R-407A, R-407C, R-410A, and R-507/R-507A); R-421A is not one of the covered blends.

According to Choice (*i.e.*, the patent holder for R-421A), unpatented R-421A is chemically similar, but not identical, to Choice® R-421A, which is specifically excluded from the order.[9] Choice® R-421A is a proprietary refrigerant blend made of approximately 58 percent pentafluoroethane and approximately 42 percent 1,1,1,2-tetrafluoroethane, with a lubricating oil up to 20 percent of the refrigerant gases, comprised of 65-88 percent hydrotreated light napthenic distillate and 10-20 percent solvent refined light napthenic distillate petroleum.[10]

IV. SCOPE OF THE *ORDER*

The products subject to this order are HFC blends. HFC blends covered by the scope are R-404A, a zeotropic mixture consisting of 52 percent 1,1,1 Trifluoroethane, 44 percent Pentafluoroethane, and 4 percent 1,1,1,2-Tetrafluoroethane; R-407A, a zeotropic mixture of 20 percent Difluoromethane, 40 percent Pentafluoroethane, and 40 percent 1,1,1,2-Tetrafluoroethane; R-407C, a zeotropic mixture of 23 percent Difluoromethane, 25 percent Pentafluoroethane, and 52 percent 1,1,1,2-Tetrafluoroethane; R-410A, a zeotropic mixture of 50 percent Difluoromethane and 50 percent Pentafluoroethane; and R-507A, an azeotropic mixture of 50 percent Pentafluoroethane and 50 percent 1,1,1-Trifluoroethane also known as R-507. The foregoing percentages are nominal percentages by weight. Actual percentages of single component refrigerants by weight may vary by plus or minus two percent points from the nominal percentage identified above.[11]

Any blend that includes an HFC component other than R-32, R-125, R-143a, or R-134a is excluded from the scope of the *Order*.

Excluded from the *Order* are blends of refrigerant chemicals that include products other than HFCs, such as blends including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrocarbons (HCs), or hydrofluoroolefins (HFOs).

Also excluded from the *Order* are patented HFC blends, including, but not limited to, ISCEON® blends, including MO99™ (R-438A), MO79 (R-422A), MO59 (R-417A), MO49Plus™ (R-437A) and MO29™ (R-4 22D), Genetron® Performax™ LT (R-407F), Choice® R-421A, and Choice® R-421B.

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[9] *See* Choice's Letter, "Application for Scope Ruling on Exclusion of Patented HFC Blends from Antidumping Duty Order A-570-028: Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China," dated November 30, 2017 at 5.

[10] *Id*.

[11] R-404A is sold under various trade names, including Forane® 404A, Genetron® 404A, Solkane® 404A, Klea® 404A, and Suva®404A. R-407A is sold under various trade names, including Forane® 407A, Solkane® 407A, Klea®407A, and Suva®407A. R-407C is sold under various trade names, including Forane® 407C, Genetron® 407C, Solkane® 407C, Klea® 407C and Suva® 407C. R-410A is sold under various trade names, including EcoFluor R410, Forane® 410A, Genetron® R410A and AZ-20, Solkane® 410A, Klea® 410A, Suva® 410A, and Puron®. R-507A is sold under various trade names, including Forane® 507, Solkane® 507, Klea®507, Genetron®AZ-50, and Suva®507. R-32 is sold under various trade names, including Solkane®32, Forane®32, and Klea®32. R-125 is sold under various trade names, including Solkane®125, Klea®125, Genetron®125, and Forane®125. R-143a is sold under various trade names, including Solkane®143a, Genetron®143a, and Forane®125.

HFC blends covered by the scope of the *Order* are currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) at subheadings 3824.78.0020 and 3824.78.0050. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope is dispositive.[12]

V. DISCUSSION OF THE ISSUES

Comment 1: Preliminary Scope Ruling

In the *Preliminary Determination,* Commerce found, based on a plain reading of the scope language, and consistent with statements made by Commerce in the underlying investigation, that the *Order* includes five blends: R-404A, R407A, R-407C, R-410A, and R-507A; and that R-421A, whether patented or unpatented, is not within the scope of the *Order*.[13]

Choice's Arguments

- Commerce should reconsider its position in the *Preliminary Determination* to find that non-patented versions of R-421A, or imports of patented R-421 imported by importers without patent rights, are subject to the *Order*.[14] Commerce's *Preliminary Determination* does not adequately consider the entire record of this proceeding and underlying public policy.[15] Additionally, Commerce staff have stated that the ruling was "already decided," which raises concerns that the outcome for the final determination will be pre-judged.[16]

- The plain language of the scope does not support a finding that the *Order* covers only the five named HFC blends. Thus, Commerce's interpretation of the scope language is legally and logically unsupportable.[17] Rather, the language in the scope suggests that the *Order* covers all HFC blends and the five listed blends are meant to be an illustrative, not exhaustive, list of HFC blends.[18] Further, the *Order* language sets out several exclusions from the category of HFC blends, that would be entirely unnecessary if the scope was limited to five named blends.[19] If Commerce wanted to limit the scope to five blends, it should have phrased the language to specifically state the *Order* covers "only" the five listed blends. Additionally, the text of the *Order* must be interpreted with a view to the structure of the *Order*, which establishes an in-scope class, then expressly excludes certain subsets of that

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[12] *See Order*.
[13] *See Preliminary Determination* PDM at 1 and 8-9.
[14] *See* Choice's Case Brief at 4-19.
[15] Choice claims that Commerce failed to properly address one of its submissions in its ruling. *See* Choice's Case Brief at 5-6 (citing *Preliminary Determination* and Choice's Letter, "Additional Comments on Scope Inquiry for Exclusion of Patented HFC Blends from Antidumping Duty Order A-570-028: Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China," dated April 17, 2019) (Choice's April 17, 2019 Letter)).
[16] *Id*. at 6 and footnote 2.
[17] *Id.* at 6.
[18] *Id.* at 7. To support this claim, Choice references the scope language: "{t}he products subject to this order are HFC blends. HFC blends covered by the scope are R-404…R-407A…R-407C…R-410A…R-507."
[19] *Id*. at 7-8. In support of this argument, Choice points out that there would be no basis for exclusion language for other HFC blends, such as R-421A, if they were already not within the scope of the *Order*, since R-421A is clearly not one of the five blends specified in the scope description. Further, the exclusion for other blend types (*i.e.*, CFCs, HCFCs) would also be unnecessary.

class.[20] Thus, based on the structure of the order, imports of non-patented R-421A are within the scope because they are not specifically excluded.

- Commerce does not have the authority to change an antidumping duty order[21] or interpret the scope language in a way contrary to its terms (*i.e.*, Commerce cannot change the scope to exclude an article that was included within the scope of an underlying determination).[22] The understanding in the U.S. refrigerant industry, including participants that submitted scope rebuttal comments against Choice's request, is that all imported HFC blends are subject to the *Order*, unless the merchandise is expressly excluded from it.[23]

- The intent of the HFC blends investigation was to stop dumping of all HFC blends being imported from China.[24] The actions taken by the petitioners and industry participants also support a general understanding that the scope broadly includes all types of HFC blends.[25] The Petition's original scope language shows that the petitioners requested language encompassing the class of HFCs, subject to exclusions, and that this class included five specifically named HFCs, which were those that were being imported at the largest volumes.[26] In the scope language, Commerce eventually omitted the word "including" but never indicated on the record that it intended to fundamentally re-write the scope proposed by the petitioner as it applied to patented HFCs.[27] Further, Commerce did not change other portions of the scope language, including the description of the class of in-scope HFC blends or the exclusions that would have been unnecessary if the scope only pertained to five blends.

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[20] *Id*. at 8 (citing *Kisor v. Wilkie*, 139 S. Ct. 2400, 204 L. Ed. 2d 841 (Fed. Circ. 2019) stating that an agency must use tools of construction when interpreting regulations to resolve any apparent ambiguity and the court should only defer to an agency's determination on an ambiguous decision after it carefully considers the text, structure, history and purpose of the regulation.).

[21] *Id.* at 8 (citing *Ericsson GE Mobile Communications, Inc. v. United States*, 60 F.3d 778, 782 (Fed. Cir. 1995) (*Ericsson GE Mobile*)).

[22] *Id*. (citing *Smith Corona Corp. v. United States*, 915 F.2d 683, 686 (Fed. Circ. 1990) (*Corona Corp.*); *see also Alsthom Atlantique v. United States*, 787 F.2d 565, 571 (Fed. Cir. 1986) (*Alsthom Atlantique*)).

[23] *Id.* at 6 (citing LM Supply's Letter, "Comments in response to Kenneth Ponder's and Choice's November 30, 2017 Application for a Scope Ruling," dated December 27, 2017).

[24] *Id*. (citing Petitioners' Letter, "Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China; Antidumping Duty Petition," dated June 25, 2015 (Petition)).

[25] *Id.* at 11. Choice argues that the petitioners requested exclusions from the broad category of HFC blends to exclude patented blends that would have otherwise been included in the *Order*. Choices also claims that this was followed by other industry participants, such as Kivlan, that requested similar express exclusions for patented products like R-421A, under the assumption that if these patented blends were not explicitly excluded they would be covered by the scope. *See* Petition at 24-26; *see also* Kivlan and Company, Inc. (Kivlan)'s Letter, "Hydrofluorocarbon Blends and Components from the People's Republic of China, Case No. A-570-028," dated July 31, 2015 (Kivlan's Letter).

[26] *Id*. at 25-26. Choice refers to the language "{t}he products subject to this investigation are blended hydrofluorocarbons (HFCs) and single HFC components of those blends thereof, whether or not imported for blending, including the following: R-404A…R-407A…R-407C…R-410A…R-507A…R-507." Choice claims Commerce has a policy to accept the class or kind of merchandise alleged in the petition absent some overarching reason to modify that class or kind. *Id.* (citing *Eckstrom Industries, Inc. v. United States*, 27 F. Supp. 2d 217, 223 (CIT 1998) (*Eckstrom v. United States)*. Choice also notes that HFC components were subsequently dropped from the scope when the ITC failed to make an injury determination; a point that it finds is not relevant except to reinforce that when Commerce intended to alter the scope, it removed language rather than creating an exclusion.

[27] *Id*. at 10.

- In Commerce's *LTFV Prelim*, Commerce acknowledged that the scope language for HFC blends required an exclusion for patented versions of HFC blends, even for patented HFC blends that were not one of the five HFC blends it lists in the scope.[28] If Commerce had intended only to cover the five chemicals mentioned in the scope, but not any other HFC blends, Commerce would have had no need to "modify" the scope to exclude the patented HFC blends because those were not one of the five named blends listed in the Petition.[29] Commerce's interpretation that the scope covers five blends is inaccurate and was previously opposed by the petitioners out of concerns over the potential for evasion schemes.[30]

- Numerous portions of the record (some of which were inappropriately overlooked by Commerce in the *Preliminary Determination*) conflict with Commerce's belated statement that the scope language as originally drafted was limited only to the five named HFC blends. Specifically, Commerce's decision to limit the scope to five blends does not appear to be supported by the text of the documents cited, and no excerpted passages were provided; further the statements that Commerce uses to support its interpretation are inconclusive.[31]

- Ultimately, Commerce must address whether HFC blends that are listed as scope exclusions are in-scope if the merchandise did not qualify for the exclusion.[32] If Commerce finds that unpatented versions of patented HFC blends listed as exclusions are out-of-scope, it renders the scope exclusions meaningless.[33] Commerce's scope interpretation in the *Preliminary Determination* will result in an influx of unpatented chemicals being dumped into the U.S. market. If importers had known, at the time of the investigation, that they could import any blend not listed as one of the five HFC blends, they would have labeled their merchandise as an unspecified HFC blend not listed in the scope. Instead, importers manipulated their customs paperwork to make the shipments appear to be the exempt patented R-421A and to disguise the true nature of their shipments.[34] Thus, Commerce's scope ruling rewards companies that cheat U.S. trade laws. This ruling is inconsistent with the United States' President's efforts to enforce U.S. trade laws, combat illegal dumping, and protect American intellectual property.[35]

Petitioners' Rebuttal Arguments

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[28] *Id.* at 12 (citing *Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China: Preliminary Determination of Sales at Less than Fair Value: Preliminary Determination of Sales at Less than Fair Value, Affirmative Preliminary Determination of Critical Circumstances, in Part, and Postponement of Final Determination*, 81 FR 5098 (February 1, 2016) (*LTFV Preliminary Determination*), and accompanying PDM at 7, and the underlying Petition). To support its rationale, Choice states that Commerce acknowledged that all blends were included when it responded to Kivlan's argument to include R-421A in the scope by stating, "{w}ith respect to Kivlan's argument, the petitioner has no objection to modifying the scope to exclude the patented blends R-421A and R-421B. Accordingly, we have modified the scope to exclude these blends because this modification is consistent with the intent of the Petition."

[29] *Id.* at 12-13.

[30] *Id.* at 14 (citing Petitioners' letter, "The Antidumping Duty Investigation of Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China," dated May 16, 2016 at 20-21).

[31] *Id.* at 15 (citing *Preliminary Determination* PDM at 9 footnote 51).

[32] *Id.* at 15-16.

[33] *Id.* at 17-18.

[34] *Id.*

[35] *Id.* at 18-19.

- The petitioners did not comment on this issue.

BMP's Rebuttal Arguments

- Commerce appropriately concluded that R-421A, whether patented or unpatented, is not within the scope of the *Order* based on the plain language of the scope and (k)(1) factors under 19 CFR 351.225(k)(1).[36] Commerce applied the appropriate interpretive framework outlined in the regulations and made its decision in accordance with decisions of the U.S. Court of International Trade (CIT) and U.S. Court of Appeals for the Federal Circuit (Federal Circuit).[37]

- The language of the scope limits the five named HFC blends to R-404A, R-407A, R-407C, R-410A, and R-507A and the phrase "HFC blends are covered by the scope are…" clearly demonstrates that the five blends are the only blends and not merely illustrative of a subset of HFC blends as claimed by Choice.[38] Thus, the list of patented HFC blends cannot be interpreted to improperly expand the scope to include more than the five listed blends.[39] Even if Commerce accepted Choice's argument that the examples of patented blends creates some ambiguity in the scope language, the record of the investigation supports the fact that the scope only includes the five named blends.[40]

- According to 19 CFR 351.225(k)(1), where the plain language of the scope is ambiguous, Commerce must consider "descriptions of the merchandise contained in the petition, the initial investigation, and the determinations of the Secretary (including prior scope determinations) and the Commission." In this case, Commerce reviewed these sources in the *LTFV Final* and determined that the scope only covers the five blends explicitly listed in the first paragraph of the scope.[41]

- Choice raises an issue that has long been decided, which contradicts its claim that there is a common understanding in the industry that all HFC blends are in-scope. Thus, Choice has overlooked the first paragraph of the scope or Commerce's explanation in the *LTFV Final*.[42]

Commerce's Position:

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[36] *See* BMP's Rebuttal Brief at 1-5.
[37] *Id*. at 2 (citing *Meridian Prods., LLC v. United States*, 851 F. 3d 1375, 1381 (Fed. Cir. 2017); *see also Mid Continent Nail Corp. v. United States*, 725 F. 3d 1295, 1302 (Fed. Cir. 2013); *Tak Fat Trading Co. v. United States*, 396 F. 3d 1378, 1383 (Fed. Cir. 2005); and *ArcelorMittal Stainless Belgium N.V. v. United States*, 694 F. 3d 82, 84 (Fed. Cir. 2012)).
[38] *Id*. at 2 (citing *Order*).
[39] *Id*. at 2.
[40] *Id*. at 3 (citing *Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances*, 81 FR 42314 (June 29, 2016) (*LTFV Final*), and accompanying Issues and Decision Memorandum (IDM) at Comment 5).
[41] *Id.*
[42] *Id*. at 5.

In the *Preliminary Determination*, we examined the language of the *Order* and the description of the product contained in Choice's scope ruling request, as well as the description of the merchandise set forth in the Petition, the underlying investigation and as used by the International Trade Commission (ITC) for its injury determination. We found that these sources are, together, dispositive as to whether the product at issue is subject merchandise, in accordance with 19 CFR 351.225(k)(1). Choice does not present any new arguments that would cause us to reverse our decision for the final determination.[43]

When a request for a scope ruling is filed, Commerce examines the scope language of the order at issue and the description of the product contained in the scope-ruling request.[44] Pursuant to Commerce's regulations, Commerce may also examine other information, including the description of the merchandise contained in the petition, the records from the investigations, and prior scope determinations made for the same product.[45] If Commerce determines that these sources are sufficient to decide the matter, it will issue a final scope ruling as to whether the merchandise is covered by an order. Where the descriptions of the subject merchandise are not dispositive, Commerce will consider the following factors provided at 19 CFR 351.225(k)(2): (i) the physical characteristics of the product; (ii) the expectations of the ultimate purchasers; (iii) the ultimate use of the product; (iv) the channels of trade in which the product is sold; and (v) the manner in which the product is advertised and displayed.

In accordance with 19 CFR 351.225(c) and (d), Commerce has reviewed the request in light of the description of the merchandise subject to the *Order*, as this description is set forth in the petition, the initial investigation, and the determinations of the Secretary (including all prior scope determinations) and the ITC. Based on this review, we find that the issue of whether the product in this scope request is within the scope of the *Order* can be determined solely upon the application and the descriptions of the merchandise referred to in section 351.225(k)(1) of Commerce's regulations. *See* 19 CFR 351.225(d). Therefore, Commerce finds it unnecessary to consider the additional factors under 19 CFR 351.225(k)(2).

The scope language covering HFCs from China, is dispositive as to whether the product at issue is subject merchandise. Further, we find that the factual record in this case, as well as statements by Commerce and the ITC in the underlying investigation (*see* below), support a finding that R-421A does not fall within the scope of the *Order*, in accordance with 19 CFR 351.225(k)(1).

The scope of the *Order* defines HFC blends as follows:

> The products subject to this order are HFC blends. HFC blends covered by the scope are R-404A, a zeotropic mixture consisting of 52 percent 1,1,1 Trifluoroethane, 44 percent Pentafluoroethane, and 4 percent 1,1,1,2-Tetrafluoroethane; R-407A, a zeotropic mixture of 20 percent Difluoromethane, 40 percent Pentafluoroethane, and 40 percent 1,1,1,2-Tetrafluoroethane; R-407C, a zeotropic mixture of 23 percent Difluoromethane, 25 percent Pentafluoroethane, and 52 percent 1,1,1,2-Tetrafluoroethane; R-410A, a zeotropic mixture of 50

[43] *See Preliminary Determination* PDM at 8-10.
[44] *See Walgreen Co. v. United States*, 620 F.3d 1350, 1357 (Fed. Cir. 2010).
[45] *See* 19 CFR 351.225(k)(1).

> percent Difluoromethane and 50 percent Pentafluoroethane; and R-507A, an azeotropic mixture of 50 percent Pentafluoroethane and 50 percent 1,1,1-Trifluoroethane also known as R-507. The foregoing percentages are nominal percentages by weight. Actual percentages of single component refrigerants by weight may vary by plus or minus two percent points from the nominal percentage identified above.[46]

Thus, the scope of the *Order* includes the following five blends: R-404A, R407A, R-407C, R-410A, and R-507A. Because R-421A is not one of these blends, we find that it does not fall within the scope and thus is not covered by the *Order*. This finding is consistent with our finding in the *LTFV Final*, and the record of the underlying investigation.[47] This language is also consistent with statements made during the HFCs investigation, where Commerce stated that "the blend portion of the scope is limited to five named HFC blends (*i.e.*, R-404A, R-407A, R-407C, R410A, and R-507)."[48]

The scope also contains an exclusion for patented HFC blends:

> Also excluded from the *Order* are patented HFC blends, including, but not limited to, ISCEON® blends, including MO99™ (R-438A), MO79 (R-422A), MO59 (R-417A), MO49Plus™ (R-437A) and MO29™ (R-4 22D), Genetron® Performax™ LT (R-407F), Choice® R-421A, and Choice® R-421B.[49]

Based on this language, there is no dispute that Choice® R-421A is excluded from the scope because the scope specifically excludes all patented HFC blends. However, the relevant question is whether an unpatented version of a patented HFC blend falls within the scope of the HFC blends *Order*. As discussed in the *Preliminary Determination*, and for the reasons explained above, we determined that it does not.[50]

In the underlying investigation, we determined that the scope only includes five HFC blends (R-404A, R407A, R-407C, R-410A, and R-507A). In the *LTFV Final*, we stated that:

> The scope in the Petition defined the covered products, in relevant part, as follows:

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[46] R-404A is sold under various trade names, including Forane® 404A, Genetron® 404A, Solkane® 404A, Klea® 404A, and Suva®404A. R-407A is sold under various trade names, including Forane® 407A, Solkane® 407A, Klea®407A, and Suva®407A. R-407C is sold under various trade names, including Forane® 407C, Genetron® 407C, Solkane® 407C, Klea® 407C and Suva® 407C. R-410A is sold under various trade names, including EcoFluor R410, Forane® 410A, Genetron® R410A and AZ-20, Solkane® 410A, Klea® 410A, Suva® 410A, and Puron®. R-507A is sold under various trade names, including Forane® 507, Solkane® 507, Klea®507, Genetron®AZ-50, and Suva®507. R-32 is sold under various trade names, including Solkane®32, Forane®32, and Klea®32. R-125 is sold under various trade names, including Solkane®125, Klea®125, Genetron®125, and Forane®125. R-143a is sold under various trade names, including Solkane®143a, Genetron®143a, and Forane®125.

[47] *See LTFV Final* IDM at Comment 5 (("It is clear from this language that the blend portion of the scope is limited to five named HFC blends (*i.e.*, R-404A, R-407A, R-407-C, R410A, and R-507). It is also clear that patented HFC blends, without limitation, are excluded." (citations omitted)).

[48] *See LTFV Preliminary Determination* PDM at 6-8.

[49] *See Order*.

[50] *See Preliminary Determination* PDM at 9.

> The products subject to this investigation are HFCs and single HFC components of those blends thereof, whether or not imported for blending. HFC blends covered by the scope are R-404A; . . . R-407A; . . . R-407C; . . . R-410A; . . . and R-507A, . . . also known as R-507.
>
> Also excluded from this investigation are patented HFC blends, such as ISCEON® blends, including MO99™ (RR-438A), MO79 (R-422A), MO59 (R-417A), MO49Plus™ (R-437A) and MO29™ (R-422D), Genetron® Performax™ LT (R-407F), Choice® R-421A, and Choice® R-421B.
>
> It is clear from this language that the blend portion of the scope is limited to five named HFC blends (*i.e.*, R-404A, R-407A, R-407-C, R410A, and R-507). It is also clear that patented HFC blends, without limitation, are excluded.[51]

Similarly, the ITC defined its domestic like product as the same five blends, noted in Commerce's scope language,[52] and in the *ITC Final*, the ITC appropriately recognized Commerce's interpretation of the scope stating, "{t}he five in-scope blends are the major commercial refrigerant blends sold in the U.S. market for use in stationary air conditioning and refrigeration applications." The *ITC Final* further stated that:

> {t}he subject merchandise is referred to as…. 'in-scope blends' (R-404A, R407A, R-407C, R410A, and R-507A)…and '{o}ut-of-scope blends' or 'refrigerant blends' refer to any refrigerant blend that uses at least one in-scope HFC component and is not one of the five in-scope blends listed above. These include all other refrigerant blends, including HFC, CFC, HCFC, and HFO blends, both proprietary and patented refrigerant blends."[53]

Further, the Petition clearly set forth the same blends listed in the current scope. For instance, the language in the Petition states "HFC blends covered by the scope are R-404A; . . . R-407A; . . . R-407C; . . . R-410A; . . . and R-507A, . . . also known as R-507."[54]

Therefore, based on the foregoing, Commerce's determination that unpatented R-421 is non-subject merchandise because it is not one of the five blends listed in-scope is consistent with sources enumerated under 19 CFR 351.225(k)(1) including the Petition, the underlying investigation, and the ITC's determination. Thus, our *Preliminary Determination* was made in accordance with Commerce's regulations for interpreting the language of the scope of an order

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[51] *See LTFV Final* IDM at Comment 5.

[52] *See Hydrofluorocarbon Blends and Components from China; Investigation No. 7312-TA-1279 (Preliminary) August 2015* (*ITC Prelim*) at I-15*; see also Hydrofluorocarbon Blends and Components from China Investigation No. 731-TA-1279 (Final) USITC Pub. 4629 (August 2016)* (*ITC Final*) at I-13, tables I-2, I-25, III-11. *Id.* at II-6 showing in-scope blends as R-404a, R-407a, R-407c, R-507a, and R-410a and the column showing out-of-scope HFC substitutes in-scope blends, one of which is R-421a, an out-of-scope HFC substitute for the in-scope blend R-407c.

[53] *See ITC Final* at I-1, footnote 2.

[54] *See LTFV Final* IDM at Comment 5 (citing the Petition).

and is in accordance with Federal Circuit decisions with respect to Commerce's discretion and procedures for interpreting the scope of orders administered by Commerce.[55]

In its comments, Choice maintains that the plain language of the scope and the underlying record of the investigation do not support Commerce's interpretation.[56] According to Choice, the scope language is written in such a way to suggest that HFC blends are covered, regardless of whether they are one of the five listed blends, unless expressly excluded from the scope.[57] Thus, Choice asserts that unpatented R-421A must be in scope, because it is an HFCs blend and is not expressly excluded.[58] According to Choice, this is the only logical interpretation from the sources enumerated in 19 CFR 351.225(k)(1).[59] Choice finds that this interpretation matches the tone of the Petition, accurately reflects intentions of the petitioners, and the general understanding of industry representatives.[60] Based on its understanding, Choice believes that Commerce erroneously interpreted the language of the scope and the intent of the petitioners in the underlying investigation.[61]

Regarding Choice's arguments, we disagree. We find that Choice's interpretation of the scope language is flawed, overlooks previous determinations on what constitutes in-scope merchandise, and is not supported by record evidence.[62] As noted above, the Petition clearly set forth the same blends listed in the current scope. For instance, the language in the Petition states "HFC blends covered by the scope are R-404A; . . . R-407A; . . . R-407C; . . . R-410A; . . . and R-507A, . . . also known as R-507."[63] Therefore, it is unreasonable to accept an interpretation that the Petition intended that other blends be covered, or that the resulting *Order* covers other blends not specifically listed within the scope language. Further, as explained *supra*, Commerce has consistently interpreted the scope to only include the five named blends; in the *LTFV Final*, we stated that "{i}t is clear… that the blend portion of the scope is limited to five named HFC blends (*i.e.*, R-404A, R-407A, R-407-C, R410A, and R-507). It is also clear that patented HFC blends, without limitation, are excluded."[64]

Choice maintains that, in the Petition, the petitioners had intended to include all HFC blends.[65] We disagree with Choice, as we already addressed this argument in the *LTFV Final*:

> We disagree with the petitioners that they intended to include additional blends in the Petition, or that the intent of the Petition was altered in any way by the addition of language suggested by {Commerce}. The petitioners agreed to change the "includes" language at {Commerce}'s suggestion prior to initiation, it

[55] *See, e.g.*, *Arcelormittal Stainless*; *see also Duferco*.
[56] *See* Choice's Case Brief at 6-7.
[57] *Id.* at 7-8.
[58] *Id.* at 5 and 16-17.
[59] *Id.* at 9-17.
[60] *Id.*
[61] *Id.*
[62] In Choice's Case Brief, it claims that Commerce failed to consider Choice's April 17, 2019, Letter. We agree that we inadvertently overlooked this submission. Because Choice has incorporated those arguments in its Case Brief we address them in our determination.
[63] *See LTFV Final* IDM at Comment 5 (citing the Petition).
[64] *See LTFV Final* IDM at Comment 5 (citations omitted).
[65] *See* Choice's Case Brief at 6 and 11.

stated that "{t}he Coalition understands that this change was not intended to narrow or circumscribe the scope of the investigation, such that HFC blends or single component HFCs would be more narrowly defined or excluded from the investigation."[66] The Petition clearly sets forth the same blends and components listed above as an exhaustive list,[67] and all discussion of the physical characteristics and uses of HFC blends is framed in terms of these products.[68,69] While the original Petition does suggest scope language which "includes" the five blends,[70] we find that this language lacks the specificity found throughout the Petition, given that the Petition elsewhere defines the blend portion of the scope solely in terms of the five named blends.

Further, on several occasions during the course of this investigation, {Commerce} interpreted the scope language as including only the five named blends and three components, and excluding all patented blends,[71] and the petitioners have not objected to these characterizations or offered any clarification. For example, in their case brief related to scope issues, the petitioners did not comment on {Commerce}'s statements, but merely requested that {Commerce} alter one word to its proposed definition of "semi-finished blends." *See* Comment 2, {in *LTFV Final* IDM}, above.

In fact, the petitioners themselves have affirmatively stated on at least one occasion that patented blends are out of the scope,[72] and on another objected to the exclusion from the scope of products which have patents pending but took no affirmative position on already-patented blends (beyond listing "various HFC

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[66] *See* Petition Supplement at 3.

[67] *See* Petition at 11.

[68] *Id.* at 11-25. For example, the Petition at 12 states that "an antidumping order covering HFC blends should also cover the HFC components used in those blends, as well as semi-finished blends that, when imported, are not yet in the correct proportions for R-404A, R-407A, R-407C, R-410A or R-507A," and the Petition also states on the same page that "{t}he five HFC blends covered by this petition are the major commercial refrigerants …" (emphasis added in both places).

[69] The petitioners' intent to cover only the five named blends can also be seen in their proposed scope language related to semi-finished blends. Specifically, this language limits semi-finished blends to those blends of PRC components used to produce the subject blends . . .that have not been blended to the specific proportions required to meet the definition of one of the subject HFC blends described above (R-404A, R-407A, R-407C, R-410A, and R-507A)." *See* Initiation Notice, 80 FR at 43388.

[70] *See* Petition at 25, which states:

> The products subject to this investigation are blended hydrofluorocarbons ("HFCs") and single HFC components of those blends thereof, whether or not imported for blending, including the following: R-404A . . .

[71] *See, e.g.*, Refrigerant Solutions Scope Memorandum at 2 (stating "In the Petition, the petitioners stated that they intended to cover five HFC blends (*i.e.*, R-404A, R-407A, R-407C, R-410A, and R-507A) and three single HFC components of these blends (*i.e.*, R-32, R-125, and R-143a). The petitioners also stated that they intended to exclude patented HFC blends, and they provided a short list of patented products as examples" (footnotes omitted and emphasis added)); *see also* Preliminary Scope Memorandum at 13, which states "According to the petitioners, most out-of-scope blends are covered by patents, and, thus, are explicitly excluded" (emphasis added).

[72] *See* Petitioners' Rebuttal Scope Comments at 2 (FN2) where the petitioners stated: On July 31, 2015, Kivlan and Company, Inc., filed comments requesting that certain patented HFC blends, namely R-421A and R-421B, be excluded from the scope of this investigation. These patented blends are already excluded by the scope language. The HFC Coalition therefore does not object to the request (emphasis added).

> blends" that were excluded from the scope).[73] Moreover, when {Commerce} solicited comments on the appropriate product characteristics in this investigation,[74] the petitioners limited their comments to container type[75]; we find this significant because {Commerce}'s proposal was to define the specific products included in the investigation as an exhaustive list of the five blends and three components, with a catchall category for "other."[76]
>
> Indeed, it was not until the rebuttal brief that the petitioners raised what is tantamount to a wholly new argument, that the scope is broader than its plain language and includes blends and components which were not specifically named in the Petition. According to this new argument, the scope has always covered components such as R-152a, and R-227ea, and blends such as R-422b, R-422c, and R-417c.[77] However, we note that this argument is not supported by the evidence on the record for the reasons noted above. Further, we note that this argument is contradicted by the petitioners themselves in their June 2, 2016, Excluded Products Letter, where the petitioners explicitly indicated that the scope of this investigation does not, in fact, include R-422b, R-422c, and R-417c.[78,79]

Based on our analysis in the *LTFV Final*, the petitioners acknowledged that the scope did not include all HFC blends, and it is apparent that the scope does not cover all HFC blends for which a specific exclusion is not in the scope language (*i.e.*, R-422b, R-422c, and R-417c). Further, as noted above, the petitioners did not object to Commerce's characterization of the scope language throughout the investigation and there is nothing in the underlying investigation that supports Choice's claims that the petitioners intended to include all blends or other blends besides the five specifically mentioned blends. Thus, we disagree with Choice that our interpretation is inconsistent with either the Petition or the petitioners' intentions.[80]

Further, we do not find that the structure of the scope itself provides an indication that all HFC blends are covered. Choice fails to read the scope language as a whole focusing, instead, only on the first sentence of the scope (*i.e.*, "{t}he products subject to this order are HFC blends"). It is clear from the second sentence (*i.e.*, "HFC blends covered by the scope are…") that the scope only covers five blends and that these blends are not an illustrative, but exhaustive list. In the

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[73] *See* Petitioners' Letter, "Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China: Submission of Factual Information in Response to Scope Exclusion Request," dated June 2, 2016 (Excluded Products Letter) at 2 and Attachment I. This letter is the same as a letter of the same name filed on April 19, 2016, except that the petitioners disclosed certain information for which they had initially requested business proprietary treatment.

[74] *See* Petitioners' Letter, "Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China: Comments on Product Characteristics," dated August 17, 2015.

[75] *See* Commerce's Letter, "Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China," dated August 12, 2015.

[76] *Id.* at Attachment.

[77] *See* Petitioners' Rebuttal Brief at 25-26.

[78] *See* Excluded Products Letter at Attachment.

[79] *See LTFV Final* IDM at Comment 5 (emphasis added).

[80] We note that the petitioners did not comment on the interpretation of the scope in the *Preliminary Determination* in either its case or rebuttal briefs, which cuts against Choice's arguments regarding the petitioners' intentions. *See* Petitioners' Case Brief and Petitioners' Rebuttal Brief.

LTFV Final, we addressed the same argument and disagreed that the language suggested that the five named blends are an illustrative, non-exhaustive, list of a larger category of HFC blends. As noted above, in our *LTFV Final*, we stated:

> The Petition clearly sets forth the same blends and components listed above as an exhaustive list, and all discussion of the physical characteristics and uses of HFC blends is framed in terms of these products.[81]

Considering that we addressed which blends constitute subject merchandise in the *LTFV Final*, and this interpretation was reinforced by the ITC in the *ITC Final*, it is unlikely that the U.S. refrigerant industry understood that all imported HFC blends, not listed as an exclusion, are subject to the *Order*. In fact, the record supports the opposite conclusion. For instance, in ICOR's scope ruling comments it cites to the *LTFV Final*[82] and in the underlying investigation, ICOR argued that its three proprietary blends were outside the scope because it understood that since these blends are "…finished but not one of the named blends, they fall outside of the scope."[83]

In essence, Choice is requesting that Commerce revisit its previous determination, hoping for a different outcome.[84] We find that by interpreting the language to include blends (whether patented or not), not explicitly identified in the scope language, we would broaden the scope, beyond what was intended in the underlying investigation. As stated by Choice, Commerce does not have the authority to change an antidumping duty order or interpret the scope language to narrow or expand the scope in a way that was not originally intended.[85] Therefore, since we are interpreting the scope in accordance with 19 CFR 351.225(k)(1), and not recommending any changes from the *LTFV Final*, we find that Choice's reliance on *Ericsson GE Mobile*, *Alsthom Atlantique* and *Corona Corp.* are inapposite.

As noted above, given that the record does not support that the scope includes all HFC blends, additional arguments proposed by Choice are misplaced. For instance, Choice claims that when Commerce revised the scope to omit the word "including" it failed to properly acknowledge whether unpatented versions of patented products were also excluded.[86] We find that there was

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[81] *See LTFV Final* IDM at Comment 5.

[82] *See* ICOR's Letter, "HFC Blends and Components from the PRC: Response to Kenneth Ponder's and Choice Refrigerants' November 30, 2017 Application for a Scope Ruling," dated December 5, 2017 at 2 (citing *LTFV Final* IDM at Comment 5).

[83] *See LTFV Final* IDM at Comment 5 (citing ICOR International Inc. (ICOR)'s Letter, "Case Brief of ICOR International Inc. Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China," dated May 11, 2016).

[84] Choice makes an unsupported argument in its case brief that staff indicated that outcome was "already decided." Thus, they found the decision to be prejudged. Choice provides no evidence to support this assertion, but we note, to the extent we have already addressed the same arguments Choice raises in previous findings, we find that the decision has been predetermined.

[85] *See, e.g.*, *Wheatland Tube Co. v. United States*, 161 F. 3d 1365, 1370 (Fed. Circ. 1998) and *Ericsson GE Mobile*, 60 F. 3d at 782.

[86] Choice's argument suggesting that the scope from the Petition was revised by Commerce or fundamentally altered in a way contrary to the petitioners' intentions is misconstrued because Commerce did not rewrite the scope or omit the word "includes." The petitioners agreed to change the scope language at Commerce's suggestion prior to initiation because the Petition indicated elsewhere that it only covered five blends. In response to this suggestion,

no reason to address the outcome of unpatented versions of patented products when the scope only identifies the five blends that covered by the *Order*. If we intended to include unpatented versions of patented blends, not specifically mentioned in the scope, we would have addressed this in the investigation.

Choice's arguments rest on the assumption that the exclusion listed in the scope for patented blends indicates that unpatented versions of those same blends must be excluded, otherwise the exclusion is meaningless since it is not one of the five named blends. Here, we find that Choice mischaracterizes the intent of the exclusion language for patented HFC blends. The scope language, "{a}lso excluded from the *Order* are patented HFC blends, including, but not limited to…" was intended to exclude all patented HFC blends. The non-exhaustive list of patented HFC blends (*i.e.*, for blends such as MO99™ (RR-438A), MO79 (R-422A)) that follows emphasizes that any blend with a patent is excluded.[87] In some cases, the names of patented HFC blends were included for clarity at the request of interested parties, in order to emphasize that the blends were specifically excluded from the *Order*.[88] However, by including the blends in the illustrative list of patented blends that were excluded, we did not imply that such blends would otherwise have been included; only that doing so would provide a clear indicator for CBP's enforcement of the scope of the order. For example, in the *LTFV Preliminary Determination*, Commerce noted that "Kivlan requested that the scope of the investigation explicitly exclude blends that are currently under patent protection, including Choice R-421A and Choice R-421B."[89] The petitioners did not object to the modification to explicitly exclude HFC blends R-421A and R-421B from the scope; consequently, Commerce modified the scope to explicitly exclude R-421A and R-421B, because we found such an exclusion to be consistent with the intent of the Petition.[90] Commerce's determination was unchanged in the *LTFV Final*.[91]

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the petitioners stated that "{t}he Coalition understands that this change was not intended to narrow or circumscribe the scope of the investigation, such that HFC blends or single component HFCs would be more narrowly defined or excluded from the investigation." *See LTFV Final* IDM at Comment 5. Because the petitioners made this modification based on our suggested language, and; thus, was not in contravention of the petitioners' intentions, we find Choice's reference to *Eckstrom v. United States* (*i.e.*, Commerce's practice for accepting the petitioner(s) scope language) does not apply.

[87] *See LTFV Final* IDM at Comment 5, footnote 108 (citing Memorandum, "Antidumping Duty Investigation of Hydrofluorocarbon Blends and Components (HFCs) from the People's Republic of China (PRC): Analysis of Scope Comments Made by Refrigerant Solutions Limited," dated May 3, 2016, stating "In the Petition, the petitioners stated that they intended to cover five HFC blends (*i.e.*, R-404A, R-407A, R-407C, R-410A, and R-507A) and three single HFC components of these blends (*i.e.*, R-32, R-125, and R-143a). The petitioners also stated that they intended to exclude patented HFC blends, and they provided a short list of patented products as examples). Thus, we do not agree that by finding that unpatented versions of patented HFC blends listed as exclusions are out-of-scope, it renders the scope exclusions meaningless. The inclusion of patented versions of unpatented blends as examples for clarification purposes does not alter the meaning or intention of the scope language in any manner.

[88] *See* Kivlan's Letter at 1.

[89] *See LTFV Preliminary Determination* PDM at 7.

[90] *Id.*

[91] *See LTFV Final* IDM at Comment 5, footnote 109 (citing Petitioners' Letter, "Hydrofluorocarbon Blends and Components Thereof from the People's Republic of China: Response to Scope Comments," dated August 17, 2015, at 2 stating "{o}n July 31, 2015, Kivlan and Company, Inc., filed comments requesting that certain patented HFC blends, namely R-421A and R-421B, be excluded from the scope of this investigation. These patented blends are already excluded by the scope language. The HFC Coalition therefore does not object to the request.").

Although Commerce does not, generally, include unnecessary exclusions for products which are not be covered by a scope, Commerce does include explicit exclusions for products which may be on the edge of the scope and which may risk being misinterpreted as in-scope merchandise.[92] Commerce also considers interested party comments in proceedings, and may include explicit exclusions for products for which interested parties request an exclusion. This practice does not render the exclusions "meaningless" if the intent is to reduce confusion or to reinforce the language in the scope. Additionally, the record does not contain implicit or explicit evidence supporting that we acknowledged an exclusion was necessary for patented blends even if they were not one of the five named blends. Ultimately, we find that it would be inappropriate to use an exclusion as means to expand the scope beyond the language listed in the scope.

Further, and importantly, Choice does not acknowledge the history of the scope covered by this *Order*. For the duration of the investigation, the scope also covered components and unfinished blends of HFCs. When Commerce re-wrote the language for the *Order*, after the ITC's final determination, Commerce kept much of the existing structure, while only excising portions pertaining to components. Thus, rather than combine the first two sentences of the scope of the *Order* to state that the order only covers the five listed HFC components, Commerce re-wrote the first sentence to remove references to components:

Original *LTFV Final* Scope Excerpt	Final *Order* Scope Excerpt
"The products subject to this investigation are HFCs and single HFC components of those blends thereof, whether or not imported for blending. HFC blends covered by the scope are…"[93]	"The products subject to this order are HFC blends. HFC blends covered by the scope are…"[94]

Further, at the time of the investigation, it was conceivable that certain blends of HFCs could have been construed as unpatented blends of HFCs, because the scope also included "semi-finished blends of Chinese HFC components."[95] This language pertaining to unfinished blends was removed, in its entirety, from the language of the *Order*, to accommodate the ITC's final injury determination.[96]

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[92] *See, e.g.*, *Stainless Steel Sheet and Strip in Coils from the Republic of Korea: Preliminary Results of Countervailing Duty Changed Circumstances Review*, 71 FR 75937 (December 19, 2006). The scope language states, "the subject sheet and strip is flat-rolled product in coils that is greater than 9.5 mm in width and less than 4.75 mm in thickness, and that is annealed or otherwise heat treated and pickled or otherwise descaled." In the list of scope exclusions it states "{e}cluded from the scope of this order are the following: (1) sheet and strip that is not annealed or otherwise heat treated and pickled or otherwise descaled, (3) plate (*i.e.*, flat-rolled stainless steel products of a thickness of 4.75 mm or more), (4) flat wire (*i.e.*, cold-rolled sections, with a prepared edge, rectangular in shape, of a width of not more than 9.5mm." The products in the first, third, and fourth exclusions fall squarely outside the definition of in-scope merchandise, the first because it relates to product that is not annealed and pickled and the latter two because they involve merchandise of more than 4.75 mm in thickness or of not more than 9.5 mm in width.

[93] *See LTFV Final*, 81 FR at Appendix I – Scope of the Investigation.

[94] *See Order*, 81 FR at Scope of the Order.

[95] *See LTFV Final*, 81 FR at Appendix I – Scope of the Investigation.

[96] *See Order*, 81 FR at Scope of the Order.

Finally, Choice makes a number of unsupported arguments about the outcome of Commerce's ruling such as: (1) there will be an increase in the dumping of unpatented chemicals; (2) importers will mislabel merchandise as an unspecified non subject HFC blend; (3) importers will manipulate their customs paperwork to circumvent the *Order*; and (4) the ruling will reward companies that cheat U.S. trade laws in contravention of the United States' President's efforts to enforce U.S. trade laws. To the extent that our ruling on unpatented R-421A would lead to improper conduct by any importers or exporters, we have already addressed Choice's concern with respect to imports of unpatented R-421A with a finding of an affirmative anticircumvention determination.[97] Further, we have several ongoing anti-circumvention proceedings examining various circumvention schemes by exporters/importers related to the HFCs *Order* in which we address similar concerns. In this case, we have interpreted the scope of the *Order* in a manner that is consistent with the underlying investigation. Based on this, we find no reason to alter our *Preliminary Determination*.

Comment 2: Whether the Process of Assembly or Completion of R-421A Into HFC Blends in the United States is Minor and Insignificant

In determining whether the process of assembly or completion in the United States is minor or insignificant, Commerce conducted its analysis using the interpretative framework outlined in sections 781(a)(1)(C) and 781(a)(2) of the Act. Based on this evaluation, in the *Preliminary Determination*, we determined (1) that BMP's level of investment is minimal when compared to the level of investment required to build and maintain a components factory;[98] (2) the nature of BMP's production process in the United States is not significant;[99] and (3) BMP's response confirms that its research and development (R&D) expenses are negligible.[100]

BMP's Arguments

- The process of producing HFC blends is not "minor or insignificant" because: (1) the level of investment in the United States is significant;[101] (2) the blending process is not simple;[102] and (3) the level of R&D in the United States is inconclusive.[103]

- Commerce's analysis of BMP's investments in the United States (*i.e.*, comparison of component production cost with the cost of blending operations) is flawed because the benchmark it uses for component production of "hundreds of millions of dollars" from an ITC statement is unreasonable.[104] To establish this benchmark, Commerce selectively quotes from the ITC that, although recognizing that an HFC blending facility costs significantly less than an HFC components facility, still found that the process to transform HFC components into HFC blends substantial.[105]

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[97] *See Preliminary Determination* PDM at 1 and 22.
[98] *Id*. at 18.
[99] *Id*. at 19.
[100] *Id*.
[101] *See* BMP's Case Brief at 2-3.
[102] *Id*. at 2-3.
[103] *Id*. at 4.
[104] *See* BMP's Case Brief at 2.
[105] *See ITC Final* at 12-13.

- Record information shows that the amount of initial investment made by BMP for equipment is significant, especially for a small company without considering the investment in a skilled workforce and testing facilities, which were recognized by the ITC.[106]

- Blending is not a simple process, as supported by the ITC's opinion, and record information showing that BMP USA's production process: (1) is not simple; (2) requires a large facility; and (3) requires significant training of skilled workers.[107]

- With respect to R&D expenditures, the blending industry is long-established, as evidenced by its existence during the original investigation. Thus, it is not surprising that significant R&D is not required for this industry and, therefore, should not be considered a determinative factor for purposes of Commerce's analysis.[108]

Petitioners' Rebuttal Arguments

- Commerce should continue to find that BMP's process of assembly or completion of HFC components into HFC blends in the United States is insignificant because, contrary to BMP's claims, its level of investment and R&D expenditures in the United States are minimal.[109]

- Commerce used the appropriate analytical framework in the *Preliminary Determination* for evaluating the level of investment in the United States. This framework was consistent with the statute as well as Commerce's longstanding practice and is supported by substantial evidence.[110]

- BMP's arguments that the completion of HFC blends in the United States is not insignificant rely solely on its arguments that pertain to its level of investment and R&D. However, BMP overlooks that these factors are not dispositive, but are two of several factors Commerce uses to determine whether the process of assembly or completion is "minor or insignificant."[111] The statute does not instruct Commerce to use a particular method for evaluating the level of investment; therefore, Commerce may use any analysis it determines appropriate to assess whether the process of assembly or completion is "minor or insignificant."[112] Commerce's analytical framework was appropriate because it measured the level of investment in the United States against the full investment involved in the complete production of finished HFC blends.[113]

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[106] *See* BMP's Case Brief at 3 (citing BMP's Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Initial Questionnaire Response," dated January 17, 2020 (BMP's January 17, 2020 QR) at 16, 24 and 26-27).
[107] *Id*. at 3-4.
[108] *See* BMP's Case Brief at 4.
[109] *See* Petitioners' Rebuttal Brief at 3-6.
[110] *Id*. at 6.
[111] *Id*. at 3.
[112] *See* Petitioners' Rebuttal Brief at 3 (citing *Certain Corrosion-Resistant Steel Products from the People's Republic of China: Affirmative Final Determination of Circumvention of the Antidumping Duty and Countervailing Duty Orders*, 83 FR 23895 (May 28, 2018) (*CORE from China*), and accompanying IDM at Comment 5).
[113] *Id*.

- The statute requires that Commerce measure "minor or insignificant" against the full investment involved in the completed production process and evaluate the pattern of trade to determine if there is any shifting between an affiliated Chinese exporter/producer and U.S. blender, and if any imports of components increased following the imposition of *Order*.[114] BMP misses the point that the analysis is not concerned with whether its investments in the United States are significant, but whether they are comparatively less significant than the investments required for production of finished HFC blends in China.[115] The statute requires this comparison to determine if circumvention is being achieved by shifting one or more of the last few minor or insignificant steps of the production process to the United States, and BMP provides no evidence for departing from this practice.[116]

- BMP cites to its claimed initial investment for blending equipment, which corroborates the evidence submitted by the HFC Coalition, showing that blending operations are insignificant.[117] This amount is undoubtedly dwarfed by "the hundreds of millions of dollars" the ITC stated was required to produce individual HFC components; a fact BMP admits in its case brief.[118]

- Commerce should reject BMP's argument that because the blending industry is long established there would be no need for this investment because: (1) Commerce did not give undue weight to R&D expenditures to determine whether the HFC blending process in the United States was minor or insignificant; (2) BMP does not dispute Commerce's statement that its R&D expenses are negligible; and (3) Commerce's analysis of BMP's R&D expenditures was reasonable and consistent with record evidence.[119]

Commerce's Position:

We continue to find, for this final determination, that the process of assembly or completion is minor or insignificant within the meaning of section 781(a)(1)(C) of the Act, as informed by the factors in section 781(a)(2) of the Act. As an initial matter, the SAA lists the five statutory criteria in section 781(a)(2) of the Act and states that, "{n}o single factor will be controlling."[120] The importance of any one of the factors listed under section 781(a)(2) of the Act can vary from case to case based on the particular circumstances unique to each anti-circumvention inquiry. In our *Preliminary Determination*, we examined each of the criteria under section 781(a)(2) of the Act, based on both qualitive and quantitative factors. We determined that (1) BMP's investment to blend HFCs in the United States is minimal in comparison to the investment require to create

[114] *Id.*
[115] *Id.*
[116] *Id.*
[117] *Id.*
[118] *See ITC Final* at 12-13.
[119] *Id.* at 12-13.
[120] *See* Statement of Administrative Action H.R. Rep. No. 103-316, Vol. 1 (1994) (SAA) at 893; *see also Preliminary Determination* PDM at 13.

components;[121] (2) BMP's R&D expenses are negligible;[122] (3) the nature of BMP's production process in the United States is not significant;[123] (4) BMP's production facility for completing finished HFC blends is not extensive;[124] and (5) the value of processing performed in the United States represents a small proportion of the value of the merchandise sold in the United States.[125] We focus on BMP's arguments pertaining to sections 781(a)(2)(A), 781(a)(2)(B), and 781(a)(2)(C) of the Act, below.

With respect to section 781(a)(2)(A) of the Act, we continue to find that BMP's investment to blend HFCs in the United States is minimal in comparison to the investment required to create the unpatented R-421A. BMP argues that Commerce's analysis is flawed because it evaluates the amount of investment for component production using an inappropriate benchmark from the *ITC Final*,[126] based on a quote from an industry representative stating component production costs "hundreds of millions of dollars."[127] According to BMP, Commerce overlooks that in the ITC Determination it found the amount to convert HFC components into HFC blends substantial.[128] Further, BMP argues that the record shows that the amount of investment related to equipment, testing facilities, and maintaining a skilled workforce, when taken together, is significant.[129]

However, the information provided by BMP demonstrates that not only is the level of investment insignificant, it is significantly less than the costs associated with starting a component production facility.[130] In this proceeding, BMP provided various figures in response to our inquiries with regard to the level of investment it incurred in the United States with respect to its process for completion of the unfinished HFC blends. In its January 17, 2020 submission, BMP provided a table that outlines its level of investment, research and development expenditures in the United States from 1990 through 2019.[131] Based on the level of investment detailed in our BPI Analysis Memorandum, we found that this figure calculated by BMP accurately represents

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[121] *See Preliminary Determination* PDM at 18; *see also* Memorandum, "Anti-Circumvention Inquiry of the Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China: Unpatented R-421A; Business Proprietary Memorandum," dated February 25, 2020 (BPI Analysis Memorandum) at 2-3.
[122] *See Preliminary Determination* PDM at 18; *see also* BPI Analysis Memorandum at 3.
[123] *See Preliminary Determination* PDM at 19; *see also* BPI Analysis Memorandum at 3-4.
[124] *See Preliminary Determination* PDM at 19; *see also* BPI Analysis Memorandum at 4.
[125] *See Preliminary Determination* PDM at 20; *see also* BPI Analysis Memorandum at 5 and Attachment 1.
[126] *See* BMP's Case Brief at 2.
[127] *See Preliminary Determination* PDM at 15 and 18 (citing ITC Hearing Transcript in the Matter of Hydrofluorocarbon Blends and Components from China Investigation No. 731-TA-1279 (Final), dated June 21, 2016 at Exhibits 1-4 and Petitioners' Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Scope Investigation Regarding Certain Unpatented HFC Blends: Request to Apply Section 781(a) to Prevent Circumvention," dated August 15, 2018 at 15 and Exhibit 3); *see also* BPI Analysis Memorandum at 3.
[128] *See* BMP's Case Brief at 3.
[129] *Id.*
[130] As noted in the BPI Analysis Memorandum, R-421 is composed of HFC components R-125 and R-134a. The production of the components used to make R-421A occurs in China. Also, as stated in the *Preliminary Determination*, "after importation into the United States from China, BMP uses unpatented R-421A, and other components from China, to produce HFC blends that are covered by the *Order*," since it does not actually produce any components (or blends made from self-produced components) on its own. *See* the BPI Analysis Memorandum at 3-5; *see also Preliminary Determination* at 17.
[131] *See* BMP's January 17, 2020 QR at Exhibit 12.

the initial investment BMP undertook in order to establish the business of converting R-421A into finished HFC blends.

Thus, we determined it was appropriate to compare the amount specified by the petitioners (*i.e.*, data from the ITC determination) regarding the initial amount required to start up the production of HFC components in China with the amount reported by BMP because both amounts represent the initial investment required to start the HFC blend production and the conversion process.

After comparing the amount to produce HFC components and semi-finished blends with the amount BMP calculated for its investment, we found that the level of investment is significant in China compared to the reported level of investment in the United States.[132] Specifically, we estimated that the level of investment in China represents a significant portion of the total investment required for these types of businesses.[133] While BMP argues that its investments are significant, especially for a small company,[134] we find that even with the inclusion of BMP's expenditures for labor and testing facilities the amount of investment required for blending operations was several orders of magnitude lower than for component operations.[135]

BMP argues that the analysis described above is flawed, based on the source proposed by the petitioners for investment costs for component production.[136] However, we find that this is the most appropriate source because the exporter of unpatented R-421A selected for review in this anticircumvention case failed to provide any information from which to evaluate the costs of production.[137] Additionally, BMP also failed to provide additional information with which to value imports of unpatented R-421A or cite to anything on the record of this proceeding showing the costs for R-421A or the underlying component production used to make the R-421A. Thus, we selected the information proffered by the petitioners, as it was the only available information on the record. Furthermore, while BMP argues that the ITC found that the cost for blending operations is not insignificant, BMP overlooks that the ITC was concerned with an analysis of determining class and kinds of merchandise, and not with circumvention. Even assuming, *arguendo*, that the ITC found blending operations to be significant, this statement is not borne out by the data provided by BMP.[138]

With respect to section 781(a)(2)(B) of the Act, we continue to find that BMP's R&D expenditures in the United States are negligible. BMP argues that the blending industry is long-

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[132] *See Preliminary Determination* PDM at 18; *see also* BPI Analysis Memorandum at 2-3.
[133] *See* BPI Analysis Memorandum for the figures underlying the Commerce's conclusion.
[134] *See* BMP's Case Brief at 3.
[135] *See* BPI Analysis Memorandum at 4 showing the total payroll and number of current workers is not significant even in conjunction with its investments in equipment and testing facilities; *see also* BPI Analysis Memorandum at 3; and BMP's January 17, 2020 QR at Exhibit 3 BMP USA's 2018 financial statements at 2 and Exhibit 3 IGas's 2018 financial statements at 4.
[136] *See* BMP's Case Brief at 3.
[137] *See Preliminary Determination* PDM at 4 and 14 (noting that T.T. International declined to provide a questionnaire response to the initial questionnaire it was issued on December 13, 2019. *See* T.T. International's Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Unpatented R-421A Blends Anti-Circumvention Inquiry; Notification of TTI's Intent Not to Respond to Department Questionnaires," dated January 8, 2019.).
[138] *See* BPI Analysis Memorandum.

established, as evidenced by its existence during the original investigation.[139] Thus, BMP argues that significant R&D is not required for this industry and, therefore, should not be considered a determinative factor for purposes of Commerce's analysis.[140]

As an initial matter, BMP does not produce HFC components, and, therefore, does not have any specific information from the producer regarding its R&D expenditures in China.[141] However, in BMP's response, it provided information that outlines its research and development expenditures along with the level of investment it incurred in the United States since its inception.[142] The specific figures provided by BMP are proprietary, however we note that, as a general matter, BMP reported negligible R&D expenditures.[143] Based on this information, we found that the HFC blending operations appeared to be activities that do not require significant research and development initiatives and expenditures.[144] Thus, with respect to section 781(a)(2)(B) of the Act, we determined that the level of R&D initiatives and expenditures in the United States is limited when compared to the R&D initiatives and expenditures likely necessary in China.

We agree with BMP's assertion that no R&D is required since, as discussed below, it only mixes the imported R-421A with imported components in a tank. However, the point of the analysis is not whether BMP's R&D expenditures in the United States are significant or insignificant, but whether the R&D expenditures associated with converting the imported R-421A into finished HFC blends in the United States is significant in comparison to the investments that would be required for production of the imported R-421A.[145] Therefore, we disagree with BMP's argument that we should disregard BMP's R&D as a factor, because it is unnecessary for the blending industry. Rather, the fact that blenders incur minimal R&D expenditures confirm Commerce's affirmative circumvention finding. Further, as pointed out by the petitioners, we considered the totality of factors in our affirmative circumvention finding and did not place emphasis solely on this factor.

With respect to section 781(a)(2)(C) of the Act, we continue to find that the nature of BMP's production process in the United States is not significant. BMP argues that the ITC found that the nature of blending process is not insignificant and argues that the record shows the process is not simple, requires a large facility, and requires significant training of skilled workers.[146]

We disagree, with BMP's arguments. BMP stated on the record that the blending process is relatively straightforward.[147] There is also no chemical reaction or temperature change involved

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[139] *See* BMP's Case Brief at 4.
[140] *Id.*
[141] *See* BMP's January 17, 2020 QR at 3.
[142] For the proprietary figures underlying the Commerce's conclusion, *see* the BPI Analysis Memorandum at 3.
[143] *Id.*
[144] *Id.*
[145] *See CORE from China* IDM at Comment 5. Although the cited proceeding involved assembly or processing in a third country under section 781(b) of the Act, the language regarding section 781(b)(2) of the Act is essentially the same under both sections 781(a)(2)(C) and 781(b)(2)(C).
[146] *See* BMP's Case Brief at 3 (citing *ITC Final* at 12-13).
[147] *See* BPI Analysis Memorandum at 3 (citing LM Supply Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Supplemental Questionnaire Response," dated April 27, 2018 (LM Supply's April 27, 2018 SQR) at 3).

in blending HFCs.[148] After the blend is tested, it is extracted from the mixing tank and packaged into smaller cylinders for resale.[149] In addition, available information shows that production of HFC blends requires only basic setups (*i.e.*, tanks, pumps, and testing equipment) and a handful of workers.[150] Finally, information on the record demonstrates that BMP's production process is fairly limited with only a single facility and a small number of blending employees to handle its blending operations.[151] Based on the information BMP provided, this process requires less processing than production of the finished HFC blends in China.[152] The specific details provided by BMP are proprietary, however we note that, as a general matter, BMP's reporting confirmed that the production process is straight-forward and does not require the same level of activities that production of the underlying HFC components requires.[153]

Based on the aforementioned, and consistent with the conclusions reached in our *Preliminary Determination*,[154] we continue to find that record evidence demonstrates that BMP's level of investment for blending unpatented R-421A into finished HFC blends is minimal, the production process is not extensive, and that BMP has not undertaken a significant level of R&D in order to process unpatented R-421A into finished HFC blends subject to the *Order*.[155] As noted above, no single factor is controlling and the importance of any one of the factors listed under section 781(a)(2) of the Act can vary from case to case based on the particular circumstances unique to each anti-circumvention inquiry. We find that the evidence placed on the record overwhelmingly supports that the process of assembly or completion is minor or insignificant within the meaning of section 781(a)(1)(C) of the Act, as informed by the factors in section 781(a)(2) of the Act. Therefore, we find that there is no reason to change our affirmative circumvention finding for the final determination.

Comment 3: Value Analysis

In accordance with sections 781(a)(1)(D) and 781(a)(2)(E) of the Act, in the *Preliminary Determination*, Commerce examined the figures placed on the record by participating parties and found that the value of the parts or components produced in the foreign country is a significant portion of the total value of the merchandise in question, and that the value of the processing performed in the United States represents a small proportion of the value of the merchandise sold in the United States.[156]

BMP's Arguments

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[148] *Id*. at 3.
[149] *Id*.; *see also* LM Supply's April 27, 2018 SQR at 4.
[150] *See* BPI Analysis Memorandum at 4; *see also* BMP's January 17, 2020 QR at 16.
[151] *See* BMP's January 17, 2020 QR at 16.
[152] *See* the BPI Analysis Memorandum at 4.
[153] For the proprietary figures and details underlying the Commerce's conclusion, *see* BPI Analysis Memorandum at 3-6 and Attachment 1 and 2.
[154] *See Preliminary Determination* PDM at 18-20.
[155] *Id.* (citing BMP's January 17, 2020 QR at 16 Exhibits 12 and 20; BMP's January 17, 2020 QR at 16-17; and LM Supply's April 27, 2018 SQR at 4).
[156] *See Preliminary Determination* PDM at 20; *see also* BMP's January 17, 2020 Questionnaire Response (BMP's January 17, 2020 QR) at Exhibit 24; and BPI Analysis Memorandum.

- Commerce's methodology in the *Preliminary Determination* is unreasonable because it compared the value of all inputs from China to the total value of the finished blends. According to the statute, the parts and components used in the analysis will be the same ones subject to the circumvention inquiry (*i.e.*, R-421A).[157]

- The other components (*i.e.*, R-32 and R-143) used in the blending process are not a part of this circumvention inquiry. In addition, the only part or component that Commerce is proposing to include in the scope of the order is R-421A. Therefore, Commerce should only compare the value of the imported R-421A to the total value of the blends.

Choice's Arguments

- Commerce correctly found that BMP's imports of R-421A circumvented the HFC Blends Order.[158] BMP infringed on Choice's patent by importing patented R-421A into the United States without a license and clearly circumvented antidumping duties imposed on HFC blends and the HFC component R-134a. BMP fails to explain the reasoning behind importing the HFC blend R-421A and converting it into other HFC blends, rather than finishing the blending process in China or importing HFC components as blend feedstocks; it is clear that the reason was to avoid antidumping duties.[159]

- BMP fails to demonstrate, under section 781 of the Act, that the costs of converting R-421A into other HFC blends is significant. While BMP provides the asserted values of the R-421A imports and the final HFC blends, the marginal costs have not been provided. Rather, the marginal cost of producing BMP's blends should be zero because the added step to convert R-421A into a finished HFC blend is unnecessary. It is most economical for HFC blends to be blended at the point of manufacture. Therefore, BMP's marginal costs for its second blending step should be disregarded.[160]

- Commerce should also reject BMP's below-market valuation of imported R-421A. Instead, Commerce should obtain information on the market value of HFC blends and components in the relevant time frame. In addition, Commerce should consider the ownership of BMP affiliates and investigate the existence of preferential pricing from affiliated Chinese companies or subsidies from the Government of China.[161]

- IGas USA, and other newly formed shell companies in the BMP Group that imported and used R-421A without paying antidumping duties, should also be held liable since their only business is producing HFC blends.[162] Further, Commerce should consider the protection of U.S. intellectual property theft by foreign-backed enterprises. BMP admits that it does not

[157] *See* BMP's Case Brief at 5-6 (citing section 781(a) of the Act).
[158] *See* Choice's Case Brief at 19.
[159] *Id.* at 20.
[160] *Id.* at 21.
[161] *Id.*
[162] *Id.* at 22 (citing BMP's January 17, 2020 QR at 18).

hold a patent for R-421A or the license to use that patent.[163] Yet, even though BMP's exporter describes the imports as unpatented R-421A, BMP states that the imported R-421A was considered patented.[164] Therefore, Commerce and CBP should request all documentation of communication between BMP affiliates and its exporter to verify statements made on customs forms. It is not plausible that BMP does not maintain such business documentation.[165]

- Commerce should conduct a full forensic accounting of BMP's finances because the voluntary responses do not contain adequate information to determine the actual cost of finishing the HFC blends.[166] Data reveals that the use of the circumvented R-421A represented a significant percentage of BMP's overall business during the relevant time period. Choice estimates that such a scheme would have saved BMP nearly $100,000 for ever ISO container of HFC blend and could have resulted in BMP gaining market share in the U.S. refrigerant market.[167]

BMP's Rebuttal Arguments

- Contrary to Choice's allegations, BMP and its affiliates have not admitted that they illegally imported R-421A to avoid antidumping duties. There is no record evidence supporting Choice's claims that: (1) BMP or its affiliates committed patent infringement; (2) BMP can most economically blend HFC blends at the point of manufacture or that the marginal cost of blending should be zero; (3) the value of the imported R-421A is below-market; and (4) BMP made false statements to CBP.

- It is inapposite and without legal basis to request that Commerce investigate any Chinese government subsidies. Further, there is no need for a forensic accounting analysis since BMP fully answered Commerce's questions.[168]

Choice's Rebuttal Arguments

- While BMP argues that Commerce should compare only the value of the imported R-421A and ignore the cost of other blending components,[169] the statute requires that Commerce compare the value of the parts or components to the total value of the merchandise. The merchandise in this instance is the R-421A imported by BMP. If Commerce disregards other blending components, then the value of R-421A as a component is 100 percent of the value of R-421A as merchandise, thus indicating circumvention.

[163] *Id.* (citing LM Supply's Letter, "Comments in response to Kenneth Ponder's and Choice Refrigerants' November 30, 2017 Application for a Scope Ruling," dated December 27, 2017, at 4-7).
[164] *Id.* (citing BMP's January 17, 2020 QR at 20).
[165] *Id.* at 23 (citing BMP's January 17, 2020 QR at 21).
[166] *Id.* at 23-24.
[167] *Id.* at 24.
[168] *See* BMP's Rebuttal Brief at 5-6.
[169] *See* Choice's Rebuttal Brief at 3 (citing BMP's Case Brief at 5-6).

- BMP is incorrect that the merchandise should be the three-component HFC blends that it creates by blending the R-421A with additional HFC components. The statute does not specify a formula for determining what is significant and the courts have rejected interpretations of section 781 that "would render meaningless Congress's intent to address circumvention concerns."[170]

Petitioners' Rebuttal Arguments

- BMP's argument with respect to Commerce's value analysis pursuant to section 781(a)(1)(D) of the Act is unsupported by record evidence and precedent.[171] BMP incorrectly asserts that Commerce should focus only on the value of R-421A rather than comparing the value of all imported inputs from China to the total value of the finished blend. Commerce correctly calculated the value of the Chinese-origin unpatented R-421A using Mexican surrogate values.[172]

- Pursuant to section 781(a)(1)(D), Commerce concluded in the preliminary determination that the value of the components from China represented a significant portion of the total value of the merchandise sold in the United States.[173] Commerce's findings should be unchanged in the final determination.

Commerce's Position

Under section 781(a)(1)(D) of the Act, Commerce considers whether the value of the parts or components produced in the foreign country to which the order applies (*i.e.*, China) is a significant portion of the total value of the merchandise. In addition, section 781(a)(2)(E) of the Act directs Commerce to determine whether the value of processing performed in the United States represents a small proportion of the value of merchandise sold in the United States.

In the *Preliminary Determination*, with respect to the value analysis required by section 781(a)(1)(D) of the Act, we calculated the percentages of Chinese origin inputs, compared to the value of merchandise sold in the United States on a per-kilogram basis,[174] and determined that the value of the parts or components produced in China (*i.e.*, R-421A) represented a significant portion of the total value of merchandise sold in the United States (*i.e.*, R-407C, R-407A, and R-404A).[175] Since China is an NME, Commerce used a surrogate value methodology in order to value unpatented R-421A.[176]

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[170] *Id.* at 3-4 (citing *Deacero S.A. v. U.S.*, 817 F. 3d 1332, 1338 (Fed. Cir. 2016)).
[171] *See* Petitioners' Rebuttal Brief at 9 (citing BMP's Case Brief at 5).
[172] *Id.* at 9-10 (citing BPI Analysis Memo and associated surrogate value data, dated February 28, 2020; *see also* Petitioners' Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Surrogate Values Submission," dated January 13, 2019 at Exhibit 1; and BMP's Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Surrogate Value Comments," dated January 13, 2020, at Exhibit 1).
[173] *Id.* at 10 (citing *Preliminary Determination* PDM at 10-11; *see also* BPI Analysis Memo at 5).
[174] *See* BPI Analysis Memorandum at 5 and Exhibit 2.
[175] *See Preliminary Determination* PDM at 20; *see also* Preliminary Decision Analysis Memo; and BMP's January 17, 2020 QR at Exhibit 24.
[176] *See* BPI Analysis Memorandum at 6 (citing Petitioners' Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Initial Surrogate Country Selection Comments," dated January 3, 2020; and Petitioners' Letter,

In addition, with respect to the value-added analysis required by section 781(a)(2)(E) of the Act, we compared the further manufacturing costs to convert the imported R-421A into subject merchandise for each of the finished HFC blends with the total U.S. sales value of those same blends,[177] and determined the Chinese inputs as a portion of the U.S. sales value are significantly higher than the processing values as a portion of the U.S. sales value.[178] This means that the Chinese inputs constituted a more significant portion of the total value of merchandise than the costs of further manufacturing in the United States. We conducted our value analysis in accordance with the law and Commerce's normal practice. Our analysis demonstrated that (1) the value of unpatented R-421A was not a significant portion of the total value of the finished HFCs blends; and (2) the value of BMP's processing performed in the United States represents a small proportion of the value of the HFCs blends sold in the United States.[179]

It is important to note that Commerce's determination of circumvention is not based on any one criterion, but on the totality of circumstances. 19 CFR 351.225(g) states:

> Under section 781(a) of the Act, the Secretary may include within the scope of an antidumping or countervailing duty order imported parts or components referred to in section 781(a)(1)(B) of the Act that are used in the completion or assembly of the merchandise in the United States at any time such order is in effect. In making this determination, the Secretary will not consider any single factor of section 781(a)(2) of the Act to be controlling. In determining the value of parts or components purchased from an affiliated person under section 781(a)(1)(D) of the Act, or of processing performed by an affiliated person under section 781(a)(2)(E) of the Act, the Secretary may determine the value of the part or component on the basis of the cost of producing the part or component under section 773(f)(3) of the Act.

Therefore, when determining circumvention, the results of the input value and value-added analyses are considered in conjunction with the other the statutory prongs, including the level of investment, the level of research and development, the nature of the production process, and the extent of production facilities in the United States. Therefore, as noted above, our analysis demonstrates that (1) the value of unpatented R-421A was not a significant portion of the total value of the finished HFCs blends; and (2) the value of BMP's processing performed in the United States represents a small proportion of the value of the HFCs blends sold in the United States. Thus, these factors, together with the totality of the circumstances, support an affirmative determination of circumvention.

"Hydrofluorocarbon Blends from the People's Republic of China: Surrogate Values Submission," dated January 13, 2020).

[177] *Id.*at 5 and Attachment 1.

[178] *Id.* at 6 and Attachment 2.

[179] *Id.* at 5 and Attachment 1 (showing BMP's total cost for HFC blends R404A, R407C, and R407A represented 4.66, 10.37, and 6.55 percent of the total U.S. sales value, demonstrating that BMP's processing performed in the United States represents a small proportion of the value of HFCs blends sold in the United States.) *Id.* at 5 and Attachment 2 (showing that the value of Chinese merchandise as a portion of the total value of U.S. sales for HFCs blends R407C, R407A, and R404A represents 80.02, 80.10, and 93.54 percent of the total U.S. sales value.).

We reject BMP's argument that Commerce's value analysis is incorrect. BMP claims that Commerce's value analysis under section 781(a)(1)(D) is unreasonable because it compared the value of all Chinese-imported inputs to the value of the finished blends, rather than focusing on the value of R-421A, which is the subject of the circumvention inquiry.[180] Since China is an NME country, we valued R-421A using Mexican GTA data for HFC blends (*i.e.*, HS heading 38.24.7801).[181] Commerce has consistently used its surrogate value methodology in conducting circumvention proceedings for NME countries, and as discussed in Comment 4, we continue to find that it is appropriate to apply this methodology. Further, despite BMP's claims to the contrary, our analysis does not include the value of components other than the merchandise subject to this anti-circumvention inquiry.[182]

Similarly, we find that the value analysis conducted under section 781(a)(2)(E) of the Act, is reasonable because, as required by the Act, we determined whether the value of the processing performed in the United States represents a small proportion of the value of the merchandise sold in the United States, by using the value of the processing costs that were incurred by BMP in the United States as a proportion of the total value of BMP's sales for each specific blend. Although Choice argues Commerce should disregard any of BMP's further processing costs to convert R-421A into finished HFC blends in the United States, because the methodology applied in the *Preliminary Determination* demonstrates clear evidence of circumvention, we find that it is unnecessary to apply another methodology to calculate BMP's further processing costs for the final determination.[183]

Choice makes additional arguments which largely lack substantial record evidence (*e.g.*, Commerce should obtain information on the market value of HFC blends and components in the relevant time frame and should consider the ownership of BMP affiliates and investigate the existence of preferential pricing from affiliated Chinese companies or subsidies from the Government of China), but since (1) it is too late in the proceeding to collect additional information; and (2) we have already made a finding of anti-circumvention in the *Preliminary Determination*, and we have found no reason to change the results in the final determination, we find that it is unnecessary to consider additional information or conduct the further analyses hypothesized by Choice.

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[180] *See* BMP's Case Brief at 5-6.

[181] BMP's argument suggests that Commerce inappropriately included components that were not subject to the inquiry, but overlooks that the HS category used to value R-421A is the category placed on the record by parties in this proceeding and most closely represents the imported R-421A. Likewise, we did not include any additional components in our analysis under section 781(a)(1)(D). *See* BPI Analysis Memo at 6 (citing Petitioners' Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Initial Surrogate Country Selection Comments," dated January 3, 2020 and Petitioners' Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Surrogate Values Submission," dated January 13, 2020).

[182] *See* BPI Analysis Memorandum at 5-6, Attachment 2, and associated surrogate value data showing that we used only HS category 3824.78.01 (category representing an HFC blend) to value the unpatented R421A input.

[183] As noted above, *see* BPI Analysis Memorandum at Attachment 1 (showing BMP's total cost for HFC blends R404A, R407C, and R407A represented 4.66, 10.37, and 6.55 percent of the total U.S. sales value, demonstrating that BMP's processing performed in the United States represents a small proportion of the value of HFCs blends sold in the United States.) *Id.* at 5 and Attachment 2 (showing that the value of Chinese merchandise as a portion of the total value of U.S. sales for HFCs blends R407C, R407A, and R404A represents 80.02, 80.10, and 93.54 percent of the total U.S. sales value).

Comment 4: Use of Surrogate Values to Value Material Inputs

In the *Preliminary Determination* we noted that, because the purpose of this proceeding is to determine whether merchandise is being further-processed in the United States in order to circumvent the HFCs *Order* on China, an analysis of BMP's China-origin input costs falls under the purview of the Commerce's NME AD methodology. Therefore, we utilized a Mexican surrogate value to value the input in question to determine whether the value of the merchandise produced in China is a significant portion of the value of the merchandise sold in the United States, pursuant to section 781(a)(1)(D) of the Act.[184]

BMP's Argument

- Commerce must determine circumvention using the actual values for the imported R-421A.[185] Consequently, there is no legal basis for using surrogate values, since Commerce initiated the anti-circumvention inquiry pursuant to section 781 of the Tariff Act of 1930,[186] and is not calculating normal value, which is covered under section 773 of the Act[187] relating to NME proceedings.[188] Further, Commerce's regulations require that components are valued at the actual value at the time of import, except if the components were purchased from an affiliated person, which is not the case here.[189]

Petitioners' Rebuttal Argument

- Commerce should continue to use surrogate values for this anti-circumvention inquiry.[190] Neither the statute nor Commerce's regulations preclude the use of Commerce's NME methodology in anti-circumvention inquiries, including the use of surrogate values.[191] Further, using surrogate values in anti-circumvention inquiries is consistent with Commerce's practice.[192]

- As explained in the *Preliminary Determination*, Commerce found using surrogate values was appropriate because the inquiry is an anti-circumvention proceeding initiated under the HFCs *Order*, which is an NME proceeding.[193] Following BMP's interpretation of the statute, if Commerce relied on actual prices for Chinese HFC components, BMP and its suppliers could circumvent the *Order* simply be manipulating the price.[194] This approach would reward the

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[184] *See Preliminary Determination* PDM at 10-11.
[185] *See* BMP's Case Brief at 5.
[186] *Id*. at 4 (citing Section 781 of the Act).
[187] *Id*. at 4 (citing Sections 773(c)(1) and 773(c)(2) of the Act).
[188] *Id*. at 5.
[189] *See* BMP's Case Brief at 5 (citing 19 CFR 351.225(g) and 773(f)(3) of the Trade Act).
[190] *See* Petitioners' Rebuttal Brief at 7-8 (citing 19 CFR 351.225(g) and 773(f)(3) of the Trade Act).
[191] *Id*. at 7 (citing Petitioners' Letter, "Rebuttal Surrogate Country Comments," dated January 2020 at 2-7).
[192] *Id.* at 7 (citing *Preliminary Determination* PDM at 10-11; *Small Diameter Graphite Electrodes from the People's Republic of China: Affirmative Final Determination of Circumvention of the Antidumping Duty Order*, 77 FR 47596 (June 6, 2012) (*Graphite Electrodes from China*), and accompanying IDM at Comment 2).
[193] *Id.* at 7-8.
[194] *Id.* at 8.

most egregious sales at less-than-fair-value, by excluding those components from the *Order*.[195]

Choice's Rebuttal Argument

- Commerce should reject BMP's arguments for the following reasons: (1) the record supports circumvention regardless of whether surrogate values or actual prices are considered;[196] (2) the CIT has explicitly approved using a surrogate value methodology in anti-circumvention proceedings;[197] (3) BMP was unable to provide evidence showing that it was not affiliated with its suppliers; and (4) BMP has maintained a non-arm's length relationship with T.T. International (TTI), as detailed in pending federal court litigation between BMP and TTI.[198]

Commerce's Position:

In the *Preliminary Determination*, to determine whether the process of assembly in the United States is minor or insignificant, we analyzed the five factors under section 781(a) of the Act. One of the factors we analyzed, involved a surrogate value methodology to determine whether the value of the parts or components referred to in subparagraph (B) (*i.e.*, parts or components produced in the foreign country with respect to which such order or finding applies) is a significant portion of the total value of the merchandise.[199] In the *Preliminary Determination*, consistent with our practice in prior circumvention cases involving non-market economies, we used a surrogate value methodology for this factor.[200] Because this analysis under section 781(a)(1)(D) of the Act involves an NME country (*i.e.*, China), we used a surrogate country (Mexico) to value the unpatented R-421A in question.[201]

While BMP claims that we have no authority to use a surrogate value methodology in anti-circumvention cases or that the facts are different here, we disagree. Circumvention analyses take into account the particular facts of each proceeding. In this case, we are analyzing the value of the inputs coming from China. Unpatented R-421A is produced in China, an NME country, and is further processed into subject HFC blends in the United States. While real prices paid for inputs are typically used in the cost buildup for ME companies in ME proceedings, this is an anti-circumvention proceeding that pertains to the HFC blends from China *Order*, which is an NME proceeding. The presence of government controls on various aspects of NMEs render calculation of production costs invalid under Commerce's normal methodologies. The purpose of anti-circumvention inquiries is to determine whether merchandise being sold to the United States is circumventing the HFC blends *Order* on China. Thus, the application of Commerce's

[195] *Id.* at 8 (citing *Rhone Poulenc, Inc. v. United States*, 899 F. 2d 1185, 1188 (Fed. Cir. 1990) showing that the Federal Circuit has previously rejected interpretations of the statue that would in effect reward companies who engage in dumping.).
[196] *See* Choice's Rebuttal Brief at 2.
[197] *Id.* at 2 (citing *U.K. Carbon and Graphite Co., Ltd. v. U.S.*, 931 F. Supp. 2d 1322, 1336 (CIT 2013) (*U.K. Carbon and Graphite*)).
[198] *Id.* at 2 (citing Complaint (ECF#1), *T.T. International Co., Ltd. v. BMP International Co, Ltd. et al.*, No. 19-02044 (M.D. Fla. field August 16, 2019)).
[199] *See* section 781(a)(1)(D) of the Act.
[200] *See Graphite Electrodes from China* IDM at Comment 2, as upheld by the Court in *U.K. Carbon and Graphite*.
[201] *See Preliminary Determination* PDM at 10-11.

NME methodology is appropriate to analyze the unpatented R-421A costs in China. Nothing in the statute precludes us from using a surrogate value methodology in a circumvention inquiry. Also, we have used a surrogate value methodology in prior circumvention analyses involving NME countries,[202] and the CIT has upheld this practice in our circumvention determinations.[203]

While BMP asserts that Commerce use its ME purchases to evaluate the value of Chinese inputs, BMP misses the point of our analysis of the value of the subject merchandise. We are not valuing BMP's cost of its components; rather we are valuing components produced in China, in accordance with section 781(a)(1)(D) of the Act. The ME purchases from other countries by a Chinese company do not represent the value of the merchandise produced in China, which is the goal of our analysis.

Further, we do not find BMP's argument that the regulations allow Commerce to resort to the methodology under section 773(f)(3) of the Act only when components were purchased from an affiliated person to be persuasive. As noted above, Commerce has a consistent practice to use a surrogate value methodology in anti-circumvention cases for NME countries, which has been upheld by the CIT. [204] Moreover, although BMP references section 773(f)(3) of the Act, that section is related to the calculation of normal value for market economies, and does not pertain to NME countries.[205] Even assuming, *arguendo*, we found the portion of the statute cited by BMP to be meaningful for our analysis, BMP was unable to provide evidence demonstrating that its purchases of R-421A were made on an arm's length basis or came from unaffiliated suppliers. On the contrary, record evidence shows that BMP has maintained a long-standing relationship with certain Chinese suppliers of the merchandise in question and one of its companies is partially-owned by a Chinese company, which has subsidiaries that produce and export HFC components and subject blends.[206] Therefore, we find no reason to change our valuation methodology for the final determination.

Comment 5: Certification Requirements

In the *Preliminary Determination* we stated that "{i}n light of Commerce's preliminary finding of circumvention, Commerce intends to consider whether to require importers of patented R-421A who claim their merchandise is not subject to the *Order* to maintain certification that the imported product is Choice® R-421A; and thus, meets the terms of the exclusion."[207] Therefore, we invited interested parties to comment on this issue.

Petitioners Arguments

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[202] *See, e.g.*, *Graphite Electrodes from China* IDM at Comment 2; *see also CORE from China* IDM at Comment 6.
[203] *See U.K. Carbon and Graphite*, 931 F. Supp. 2d 1322, 1336.
[204] *Id*.
[205] *See* 773(f)(3) with heading "{s}pecial Rules for Calculation of Cost of Production and for Calculation of Constructed Value. For purposes of subsections (b) and (e)." We note that NMEs fall under 773(c), not subsections 773(b) and 773(e).
[206] *See* BPI Analysis Memorandum at 7, showing that BMP maintained a long-standing customer-supplier relationship with one of the Chinese suppliers from the underlying investigation and one of BMP's companies is partially-owned by a Chinese company named Zhejiang Juhua Co. Ltd.
[207] *See Preliminary Determination* PDM at 21.

- Commerce should adopt a certification regime or use particularized 10-digit case numbers to ensure that it is able to collect cash deposits on imports of unpatented R-421A but does not unlawfully collect cash deposits on entries of non-subject, patented Choice® R-421A.[208]

- Similar to a certification regime adopted by Commerce and CBP in other anti-circumvention cases, Commerce should instruct CBP to collect cash deposits and suspend liquidation for all entries of R-421A that are not accompanied by a certification executed by the importer of record that should: (1) identify the importer of record; (2) identify the Chinese producer and the exporter; (3) prove the goods are properly patented; and (4) identify the license agreement authorizing the production of the goods being entered.[209]

- The importer of record should be prepared to provide the certification and supporting documentation to CBP and/or Commerce, upon request for a specific time period.[210] Alternatively, Commerce could isolate excluded entries by assigning foreign producers unique 10-digit case numbers for use within the AD/CVD Case Reference File, which is within ACE.[211] Such a case number could be assigned only to entries to the company that produces Choice® R-421A, ensuring that the exclusion would only apply to this product. Using a 10-digit case number has the following benefits: (1) it will be easier for CBP to enforce by not requiring the need for certifications or supporting documents; (2) because case numbers would be established within anti-circumvention determinations, interested parties would have an opportunity to weigh and comment on the merits of such assignments; and (3) where eligibility for a previously assigned 10-digit case number changes, interested parties, including the importer of record, could seek modification through a changed circumstances review.[212]

Commerce's Position:

We find that the implementation of certification requirements, as outlined by the petitioners, is appropriate in this instance. Additionally, these certification requirements provide a means for companies like Choice to avoid application of AD duties under the HFCs *Order* for Choice® R-421A and prevent companies from exporting/importing unpatented versions of this product without paying the appropriate duties.

For the purposes of this anti-circumvention final determination, we have included certification language in the *Federal Register* notice,[213] and we will also include such certification language in our customs instructions to CBP, requiring that the importer/exporter identify the importer of record and the Chinese producer/exporter; provide documentation showing the goods are properly patented; and identify the license agreement authorizing the production of the goods being entered. The certification requirements are similar to requirements adopted in numerous

[208] *See* Petitioners' Case Brief at 2-3.
[209] *Id.* at 2-3.
[210] *Id.* at 2-3.
[211] *Id.* at 4-5 (citing https://www.cbp.gov/sites/default/files/assets/documents/2017-Feb/ace-terminology-10digit-company-status-20170125.pdf, to show an explanation of CBP implementation of 10-digit case numbers provided by Commerce).
[212] *Id.* at 4-5.
[213] *See* Appendices II, III, and IV of the *Federal Register* notice that accompanies this decision memorandum.

other anti-circumvention inquiries.[214] We find that these requirements are appropriate to ensure that duties are only collected on unpatented R-421A that are subject to this anti-circumvention inquiry and not on patented Choice® R-421A, which is explicitly excluded from the order. In this regard, we note that the certifications require timely completion at the time of shipment. Thus, while the certifications are only provided to CBP and Commerce on request, the certifications must be completed in real time on an entry- and shipment-specific basis. Further, we are unable to use the 10-digit case number, as suggested by the petitioner because (1) there is no existing mechanism to track or update such a specialized case number; (2) it could provide Choice's exporter with a duty-free loop-hole to ship other HFC blends through; and (3) in the future, there may be other licensed exporters of Choice® R-421A, and/or the current license holder may lose its license to export Choice® R-421A.

VI. RECOMMENDATION

Based on our analysis of the comments received, we recommend adopting all of the above positions. If accepted, we will publish the final determination of this scope ruling and anticircumvention inquiry in the *Federal Register*.

☒ Agree ☐ Disagree

5/28/2020

X

Signed by: JOSEPH LAROSKI

Joseph Laroski
Deputy Assistant Secretary
for Policy and Negotiations

[214] *See, e.g., Certain Corrosion-Resistant Steel Products from Taiwan: Affirmative Final Determination of Circumvention Inquiry on the Antidumping Duty Order*, 84 FR 70937 (December 26, 2019).

Exhibit 2

HUSCH BLACKWELL

Nithya Nagarajan
Partner

750 17th St. N.W., Suite 900
Washington, DC 20006-4675
Direct: 202.378.2409
Fax: 202.348.2319
nithya.nagarajan@huschblackwell.com

November 15, 2019

Case No. A-570-028
Total Pages: 19
Anti-Circ: Indian Blends
E&C: Operations

PUBLIC VERSION
Business Proprietary Information removed from brackets in Attachment I pages 1 and 3, and Attachment II-A to II-D.

Honorable Wilbur Ross
Secretary of Commerce
U.S. Department of Commerce
Attention: Enforcement and Compliance
Central Records Unit, Room 1870
14th Street and Constitution Avenue, N.W.
Washington, D.C. 20230

Re: ***Hydrofluorocarbon Blends from the People's Republic of China: Response to Quantity and Value Questionnaire***

Dear Secretary Ross:

On behalf of Gujarat Fluor ochemicals Limited ("GFL"), we hereby submit the foregoing quantity and value questionnaire response in the above-referenced proceeding.

REQUEST FOR PROPRIETARY TREATMENT

Certain information contained herein is business confidential data that is proprietary. This information is enclosed with brackets ("[ ]"). Disclosure of this information would cause substantial competitive and commercial harm to the parties. Such data is marked as "Proprietary Treatment Requested." Confidential treatment, subject to administrative protective order, is

requested pursuant to 19 C.F.R. § 351.105(c) (2012). Information marked as business proprietary has been so marked for one or more of the following reasons, in accordance with 19 C.F.R. §351.105(c) (2012):

(1) Business or trade secrets concerning the nature of a product or production process;
(2) Production costs (but not the identity of the production components unless a particular component is a trade secret);
(3) Distribution costs and channels of distribution;
(4) Terms of sale (but not terms of sale offered to the public);
(5) Prices of individual sales, likely sales, or other offers (but not components of prices, such as transportation, if based on published schedules, dates of sale, product descriptions except business or trade secrets described in term 1 above, or order numbers);
(6) Names of particular customers, distributors, or suppliers (but not destination of sale or designation of type of customer, distributor, or supplier, unless the designation of destination would reveal the name);
(7) In an antidumping proceeding, the exact amount of the dumping margin on individual sales;
(8) In a countervailing duty proceeding, the exact amount of benefits applied for or received by a person from each of the programs under investigation . . . ;
(9) The names of particular persons from whom business proprietary information was obtained;
(10) The position of a domestic producer or workers regarding a petition;
(11) Any other specific business information the release of which to the public would cause substantial harm to the competitive position of the submitter.

The following lists the pages in which the business proprietary information appears and the reason (referenced by the same number as listed above) that proprietary treatment is requested for such information.

Pages & Exhibit	Reason Number
Attachment I pages 1 and 3, and Attachment II-A to II-D	2, 11

The disclosure of this information would cause substantial competitive harm to GFL. Where appropriate, the data will be ranged or indexed in the public version of this submission.

HUSCH BLACKWELL

Please contact us if you have any questions regarding this submission, or require additional information.

Respectfully submitted,

HUSCH BLACKWELL

Nithya Nagarajan

HUSCH BLACKWELL

Nithya Nagarajan
Partner

750 17th St. N.W., Suite 900
Washington, DC 20006-4675
Direct: 202.378.2409
Fax: 202.348.2319
nithya.nagarajan@huschblackwell.com

REPRESENTATIVE CERTIFICATION

I, **Nithya Nagarajan**, with **Husch Blackwell LLP**, counsel to **Gujarat Fluorochemicals Limited**, certify that I have read the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 15, 2019,** pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028).** In my capacity as a counsel of this submission, I certify that the information contained in this submission is accurate and complete to the best of my knowledge. I am aware that U.S. law (including, but not limited to, 18 U.S.C. 1001) imposes criminal sanctions on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the Department may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that I am filing a copy of this signed certification with this submission to the U.S. Department of Commerce and that I will retain the original for a five-year period commencing with the filing of this document. The original will be available for inspection by U.S. Department of Commerce officials.

Signature: Nithya Nagarajan

Date: 11/15/19

Attachment 2

GUJARAT
FLUOROCHEMICALS
LIMITED
(Earlier known as Inox Fluorochemicals Limited)
ABS Towers, 2nd Floor, Old Padra Road, Vadodara - 390 007, Gujarat, India

COMPANY CERTIFICATION

I, **Manoj Agrawal, Chief Financial Officer,** currently employed by **Gujarat Fluorochemicals Limited** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 15, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **Gujarat Fluorochemicals Limited** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 15, 2019

PUBLIC SERVICE LIST
Hydrofluorocarbon Blends from the People's Republic of China
Case No. A-570-028
Anti-Circumvention Inquiry:
Indian Blends

I, Nithya Nagarajan, hereby certify that a copy of the foregoing submission was served in accordance with the Public Service List, published by the U.S. Department of Commerce on June 25, 2019. Service was made on the following parties on November 15, 2019.

Jarrod M. Goldfeder, Esq.
Trade Pacific PLLC
660 Pennsylvania Avenue, SE
Suite 401
Washington, DC 20003

James R. Cannon Jr., Esq.
Cassidy Levy Kent (USA) LLP
900 19th Street, NW
Suite 400
Washington, DC 20006

Sarah Sprinkle, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP
1875 Pennsylvania Ave., NW
Washington, DC 20006

/s/Nithya Nagarajan
Nithya Nagarajan

ATTACHMENT I

Submit all completed charts required by this questionnaire in Excel format.

1. In the chart provided in attachment II-A, please provide monthly and total quantity (in kilograms) and monthly and total value (in U.S. Dollars)[4] of your shipments of HFC blends (*i.e.*, R-404A, R-407A, R-407C, R-410A, and R-507/R-507A) for the time period of July 1, 2011, through June 30, 2019. Provide a narrative explanation of how you aggregated these data from your books and records.

   Response:

   Gujarat Flourochemical Ltd. ("GFL") utilizes a [ ] to maintain its accounting records. The data provided at Attachment II was generated from the [ ] using the [ ]. The [ ] also segregate the sales of HFC Blends and non-HFC Blends which are the basis of all the reported data.

2. Provide a narrative description of your production process for each blend exported to the United States, including whether you self-produce one or more of the components and the source of any components not self-produced.

   Response:

   GFL only produces HFC-410A and HFC-407C

   - **<u>HFC-410a</u>: - HFC-410A is a zeotropic blend of R32 and R125 in equal proportion where an equal quantity of both R32 and R125 are blended in a suitably designed and sized tank. A closed circulation process whereby both R32 and R125 are mixed via a suitable pump to obtain a homogeneous blend. GC (Gas Chromatography) analysis is performed to ensure a proper blend. R125 is produced by GFL at its Dahej unit which manufactures the R125 using [ ] as raw material inputs; R32 is mostly imported but is sourced from other Indian suppliers as well. Any raw material components which are imported are done so in approved ISO containers. The product is exported either in approved disposable cylinders or ISO containers.**

   - **<u>HFC-407C</u>: - HFC 407C is zeotropic blend of R32, R125 and R134a with a ratio of 23%; 25% and 52% respectively. R32, R125 and R134a in the specific proportions are are blended in a suitably designed and sized tank. A closed circulation process whereby all three refrigerants are mixed via a suitable pump to obtain a homogeneous blend. GC (Gas Chromatography) analysis is performed to ensure a proper blend. R125 is produced by GFL at its Dahej unit which manufactures the R125 using [ ] as raw material inputs.**

R32 is imported from China and R134a is imported from United States. Raw material is imported in approved ISO containers. The product is exported either in approved disposable cylinders or ISO containers.

3. Identify your top five U.S. importers. Fill in the chart provided in attachment II-B with the monthly quantities and values of your shipments of HFC blends to each of your top five U.S. importers.

Response:

Please see attachment II-B which provides the monthly quantities and values of shipments of HFC blends to GFL's top five U.S. importers.

4. State whether you are affiliated with any:

a. producers of HFC components R-32, R-125, R-134a, and/or R-143a in China;
b. exporters of HFC components R-32, R-125, R-134a, and/or R-143a in China;
or c. importers of HFC blends in the United States.

If yes, please identify those producers, exporters, or importers.

Response:

GFL is not affiliated with producers, exporters, or importers in China.

GFL exports blends of HFCs directly to the U.S. market as well as through GFL LLC USA, which is our wholly owned subsidiary, who in turn sells HFC blends in the United States. GFL does not have any other affiliated relationship in the United States with any producer, exporter, or importer

5. Indicate whether you imported or purchased any HFC components from China during the period July 1, 2011, through June 30, 2019 (*i.e.*, R-32, R-125, R-134a, or R-143a).

If you did import or purchase any HFC components originating in China during the time period July 1, 2011, through June 30, 2019, please respond to the questions below. If you did not import or purchase components from China during the time period July 1, 2011, through June 30, 2019, you are not required to complete the remaining questions.

Response:

During the time period July 1, 2011 to June 30, 2019, GFL purchased R-32 from suppliers in China and imported the R-32 into India for its consumption and blending operations in India. GFL did not resell R-32 to the United States as R-32 during this time period.

6. Identify your top five Chinese suppliers of HFC components during the time period July 1, 2011, through June 30, 2019, and which component(s) you purchase from each supplier.

Response:

GFL's top five Chinese suppliers for the period July 1, 2011 to June 30, 2019 are provided below:

Name of Chinese Suppliers	Name of Goods Supplied
[	]
[	]
[	]
[	]
[	]

7. Fill in the chart provided in attachment II-C with the monthly quantities and values of your purchases/imports of HFC components from China.

Response:

Please see attachment II-C, which provides the monthly quantities and values of purchases/imports of HFC components from China.

It is important to note that GFL purchases and imports R-32 from China as there are limited sources of R-32 in India of the grade and quality required by GFL for its production operations. In order for GFL to continue to operate its business and production plants in India it needs a regular and steady source of supply of R-32 which it is unable to obtain in consistent quantities which is suitable to its production schedule. Accordingly, it has no choice but to source this material from China.

8. Provide a detailed narrative response as to what your company does with the imported HFC components from China (including, but not limited to, whether your company, or another company on behalf of your company, blends them to create HFC blends, resells the HFC components, etc.).

Response:

Please see the response above to Question 2.

9. If your company, or another company on behalf of your company, blends the HFC

components from China, identify all HFC blends (*e.g.*, R-404A, R-407A, R-407C, R-410A, or R-507/R-507A) your company produces using the imported HFC components. Please also identify if the HFC blends are then exported to the United States.

Response:

Please see the response above to Question 2.

10. If your company, or another company on behalf of your company, blends the imported HFC components to create HFC blends, complete the chart in attachment II-D, which details the monthly quantities and values of each HFC blend identified in question 9 using the imported HFC components for the period of July 1, 2011, through June 30, 2019.

Response:

Please see attachment II-D, which provides the monthly quantities and values of each HFC blends produced by GFL during the period July 1, 2011 to June 30, 2019.

ATTACHMENT II-A

PUBLIC VERSION

Attachment II-A

HFC Blends Exported from India

	R-404A		R-407A		R-407C		R-410A		R-507/R-507A		Total Monthly Exports	
	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)
Jul-2011												
Aug-2011												
Sep-2011												
Oct-2011												
Nov-2011												
Dec-2011												
Jan-2012												
Feb-2012												
Mar-2012												
Apr-2012												
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Oct-2018												
Nov-2018												
Dec-2018												
Jan-2019												
Feb-2019												
Mar-2019												
Apr-2019												
May-2019												
Jun-2019												
Total						*1,500,000*					*2400000*	*15,000,000*

ATTACHMENT II-B

Attachment 2

PUBLIC VERSION

Attachment II-B

Quantity and Value of Shipments of HFC Blends to Top 5 U.S. Customers/Importers

	ALTAIR PARTNERS, LP		DYNATEMP INTERNATIONAL		GFL AMERICAS,LLC		KIVLAN & COMPANY, INC		MONDY GLOBAL, INC	
	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)
Jul-2011										
Aug-2011										
Sep-2011										
Oct-2011										
Nov-2011										
Dec-2011										
Jan-2012										
Feb-2012										
Mar-2012										
Apr-2012										
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Oct-2018										
Nov-2018										
Dec-2018										
Jan-2019										
Feb-2019										
Mar-2019										
Apr-2019										
May-2019										
Jun-2019										
Total	*290000*	*2,000,000*								

ATTACHMENT II-C

PUBLIC VERSION

Attachment II-C

Quantity and Value of HFC Components Imported/Purchased from China

	R-32		R-125		R-134a		R-143a		Total Monthly Imports	
	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)
Jul-2011										
Aug-2011										
Sep-2011										
Oct-2011										
Nov-2011										
Dec-2011										
Jan-2012										
Feb-2012										
Mar-2012										
Apr-2012										
May-2012										
Jun-2012										
Jul-2012										
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Sep-2018										
Oct-2018										
Nov-2018										
Dec-2018										
Jan-2019										
Feb-2019										
Mar-2019										
Apr-2019										
May-2019	*140000*									
Jun-2019										
Total	*3000000*								*10,000,000*	

ATTACHMENT II-D

PUBLIC VERSION

Attachment II-D

Quantity and Value of HFC Blends Produced Using Imported R-32, R-125, R-134a, and/or R-143a

	R-410A		R-407C							
	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)	Quantity (kg)	Value (USD)
Jul-2011										
Aug-2011										
Sep-2011										
Oct-2011										
Nov-2011										
Dec-2011										
Jan-2012										
Feb-2012										
Mar-2012										
Apr-2012										
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Feb-2018										
Mar-2018										
Apr-2018										
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Jun-2018										
Jul-2018										
Aug-2018										
Sep-2018										
Oct-2018										
Nov-2018										
Dec-2018										
Jan-2019										
Feb-2019										
Mar-2019										
Apr-2019										
May-2019										
Jun-2019										
Total										

260000 1,300,000

6000000

Notes :

Annual Average Cost of Production 2017-18 as per Co

Annual Average Cost of Production 2018-19 as per Co

* Cost of Production obtained from Annual Cost records of the Company and converted to USD by applyingmonthly exchange rate.

* Monthly exchange rates obtained from

https://www.x-rates.com/average/?from=USD&to=INR&amount=1&year=2019

* Production of R-410 includes Production from R-32 domestic purchase of During the financial year 2017-18

2017	
Jan-17	*70*
Feb-17	
Mar-17	
Apr-17	
May-17	
Jun-17	
Jul-17	
Aug-17	
Sep-17	
Oct-17	
Nov-17	
Dec-17	
2018	
Jan-18	*65*
Feb-18	
Mar-18	
Apr-18	
May-18	
Jun-18	
Jul-18	
Aug-18	
Sep-18	
Oct-18	
Nov-18	
Dec-18	
2019	
Jan-19	
Feb-19	
Mar-19	
Apr-19	
May-19	
Jun-19	*70*

Exhibit 3

Attachment 2

Bill of lading Nbr.	Date	Master/House	Carrier Code	Carrier	Vessel	IMO Code	Mode of Transport	Port of Departure	Port of Arrival	In bond entry type	Foreign Destination	Weight	Weight Unit
ZIMUNGB9106548	2/4/2017	S	ZIMU	ZIM INTEGRATED SHIPPING SERVICES LTD	PORTO	9481520	VESSEL. CONTAINERIZED.	PORT BUSTAMANTE,KINGSTON,JAMAICA	TAMPA,FL			182938	LB
ZIMUNGB9106549	2/4/2017	S	ZIMU	ZIM INTEGRATED SHIPPING SERVICES LTD	PORTO	9481520	VESSEL. CONTAINERIZED.	PORT BUSTAMANTE,KINGSTON,JAMAICA	TAMPA,FL			27778	LB
ZIMUSNH3834282	2/4/2017	S	ZIMU	ZIM INTEGRATED SHIPPING SERVICES LTD	PORTO	9481520	VESSEL. CONTAINERIZED.	PORT BUSTAMANTE,KINGSTON,JAMAICA	TAMPA,FL			400653	LB
ZIMUSNH3834326	2/4/2017	S	ZIMU	ZIM INTEGRATED SHIPPING SERVICES LTD	PORTO	9481520	VESSEL. CONTAINERIZED.	PORT BUSTAMANTE,KINGSTON,JAMAICA	TAMPA,FL			333776	LB
ZIMUSNH3834343	2/4/2017	S	ZIMU	ZIM INTEGRATED SHIPPING SERVICES LTD	PORTO	9481520	VESSEL. CONTAINERIZED.	PORT BUSTAMANTE,KINGSTON,JAMAICA	TAMPA,FL			66866	LB

Attachment 2

Quantity	Quantity Unit	Measure	Measure Unit	Estimated Date	Shipper Declared	Shipper Address	Consignee Declared	Consignee Declared Address	Notify Name	Notify Address	Container Quantity	Month
12600	CYL	5933	CF	2/3/2017	NOT DECLARED		LM SUPPLY,INC	13809 20TH STREET N UNIT C TAMPA,FL 33613	LM SUPPLY,INC	13809 20TH STREET N UNIT C TAMPA,FL 33613	3	2
2	TNK	1978	CF	2/3/2017	NOT DECLARED		LM SUPPLY,INC	13809 20TH STREET N UNIT C TAMPA,FL 33613	LM SUPPLY,INC	13809 20TH STREET N UNIT C TAMPA,FL 33613	2	2
9600	CYL	11866	CF	2/3/2017	T.T INTERNATIONAL CO.LTD.	ROOM 2911 MANHATTAN BUILDING 105 YOUHAO ROAD DALIAN 116001 CHINA TEL:0411-82537172	LM SUPPLY, INC	13809 20TH STREET N UNIT C TAMPA, FL 33613 TEL:001-813-298-8101	LM SUPPLY, INC	13809 20TH STREET N UNIT C TAMPA, FL 33613 TEL:001-813-298-8101	6	2
8000	CYL	9888	CF	2/3/2017	T.T INTERNATIONAL CO.LTD.	ROOM 2911 MANHATTAN BUILDING 105 YOUHAO ROAD DALIAN 116001 CHINA TEL:0411-82537172	LM SUPPLY, INC	13809 20TH STREET N UNIT C TAMPA, FL 33613 TEL:001-813-298-8101	LM SUPPLY, INC	13809 20TH STREET N UNIT C TAMPA, FL 33613 TEL:001-813-298-8101	5	2
1600	CYL	1978	CF	2/3/2017	T.T INTERNATIONAL CO.LTD.	ROOM 2911 MANHATTAN BUILDING 105 YOUHAO ROAD DALIAN 116001 CHINA TEL:0411-82537172	LM SUPPLY, INC	13809 20TH STREET N UNIT C TAMPA, FL 33613 TEL:001-813-298-8101	LM SUPPLY, INC	13809 20TH STREET N UNIT C TAMPA, FL 33613 TEL:001-813-298-8101	1	2

Attachment 2

Short Container Description	In Transit	US Region	World Region by Port of Departure	Country by Port of Departure	State of Arrival Port	Vessel Country	Final Destination	Place of Receipt	Metric Tons	Harmonized	Container	Pieces
R-134A,12600 CARTONS IN 12OZ DOT CAN T :151200CANS UN NO.3159 CLASS NO.2.2 R-134A,12600 CARTONS IN 12OZ DOT CAN T :151200CANS UN NO.3159 CLASS NO.2.2 R-134A,12600 CARTONS I [MORE]	No	GULF	CARIBBEAN	JAMAICA	FLORIDA, FL	LIBERIA		NINGBO (ZJ)	82.98		ZCSU2643069	4200
R134A IN 20000KG ISOTANK UN NO.3159 CL ASS NO.2.2 R134A IN 20000KG ISOTANK UN NO.3159 CL ASS NO.2.2	No	GULF	CARIBBEAN	JAMAICA	FLORIDA, FL	LIBERIA		NINGBO (ZJ)	12.6		JHFU0121010	1
1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:130560KGS 24H:001-813-298-8101 ATT N:BEN MENG [MORE]	No	GULF	CARIBBEAN	JAMAICA	FLORIDA, FL	LIBERIA		SHANGHAI (SH)	181.73		TGHU5212587	1600
1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:108800KGS 24H:001-813-298-8101 ATT N:BEN MENG [MORE]	No	GULF	CARIBBEAN	JAMAICA	FLORIDA, FL	LIBERIA		SHANGHAI (SH)	151.4		ZCSU2638268	1600
1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] CLASS NO.: 2.2 UN NO.:3159 FP:NO MP:NO N.W:21760KG S 24H:001-813-298-8101 ATTN:BEN MENG HS:2903399090 [MORE]	No	GULF	CARIBBEAN	JAMAICA	FLORIDA, FL	LIBERIA		SHANGHAI (SH)	30.33		ZCSU2575067	1600

Attachment 2

Description	Marks & Numbers	Harmonized	Container	Pieces	Description	Marks & Numbers	Harmonized	Container	Pieces	Description
R-134A,12600 CARTONS IN 12OZ DOT CAN T :151200CANS UN NO.3159 CLASS NO.2.2	N/M		ZCSU2692021	4200	R-134A,12600 CARTONS IN 12OZ DOT CAN T :151200CANS UN NO.3159 CLASS NO.2.2	N/M		ZCSU2720308	4200	R-134A,12600 CARTONS IN 12OZ DOT CAN T :151200CANS UN NO.3159 CLASS NO.2.2
R134A IN 20000KG ISOTANK UN NO.3159 CL ASS NO.2.2	N/M		JHFU0121025	1	R134A IN 20000KG ISOTANK UN NO.3159 CL ASS NO.2.2	N/M				
1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:130560KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/40 GP 5	N/M		TGHU5223935	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:130560KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/4 0GP 5	N/M		TTNU5691074	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:130560KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/4 0GP 5
1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:108800KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/40 GP 5	N/M		ZCSU2650643	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:108800KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/4 0GP 5	N/M		ZCSU2654675	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:108800KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/4 0GP 5
1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] CLASS NO.: 2.2 UN NO.:3159 FP:NO MP:NO N.W:21760KG S 24H:001-813-298-8101 ATTN:BEN MENG HS:2903399090 1600CYLS/26560KGS/21760 KGS/56CBM/40GP 1	N/M									

Attachment 2

Marks & Numbers	Harmonized	Container	Pieces	Description	Marks & Numbers	Harmonized	Container	Pieces	Description	Marks & Numbers
N/M										
N/M		ZCSU2560175	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:130560KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/40GP 5	N/M		ZCSU2564000	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:130560KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/40GP 5	N/M
N/M		ZCSU2685892	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:108800KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/40GP 5	N/M		ZCSU2703229	1600	1,1,1,2-TETRAFLUOROETHANE(REFRIGERANT GAS R 1 34A) [REFRIGERANT GAS R 134A] C LASS NO.:2.2 UN NO.:3159 FP:NO MP:NO N.W:108800KGS 24H:001-813-298-8101 ATT N:BEN MENG HS:2903399090 1600CY LS/26560KGS/21760KGS/56CBM/40GP 5	N/M

Exhibit 4

Attachment 2

ATTENTION: DO NOT REMOVE CYLINDER FROM BOX
ATENCIÓN: NO SAQUE EL CILINDRO DE LA CAJA

MADE IN KOREA

DEFECT 01/27/15 7010648
05452 00441339 RED 492766
134
R1348 CYLINDER 30 LB COIL
UPC: 1068842252030 030 12/12/17

WARNING: CONTAINS GAS UNDER PRESSURE, MAY EXPLODE IF HEATED. DO NOT STORE ABOVE 120°F (50°C). ALWAYS WEAR PROPER EYE PROTECTION WHEN HANDLING.

ADVERTENCIA: CONTIENE GAS BAJO PRESIÓN. PUEDE EXPLOTAR SI SE CALIENTA. NO ALMACENE A TEMPERATURAS SOBRE 120°F (50°C). USE SIEMPRE PROTECCIÓN EN LOS OJOS AL MANEJAR ESTE PRODUCTO.

90207

Attachment 2

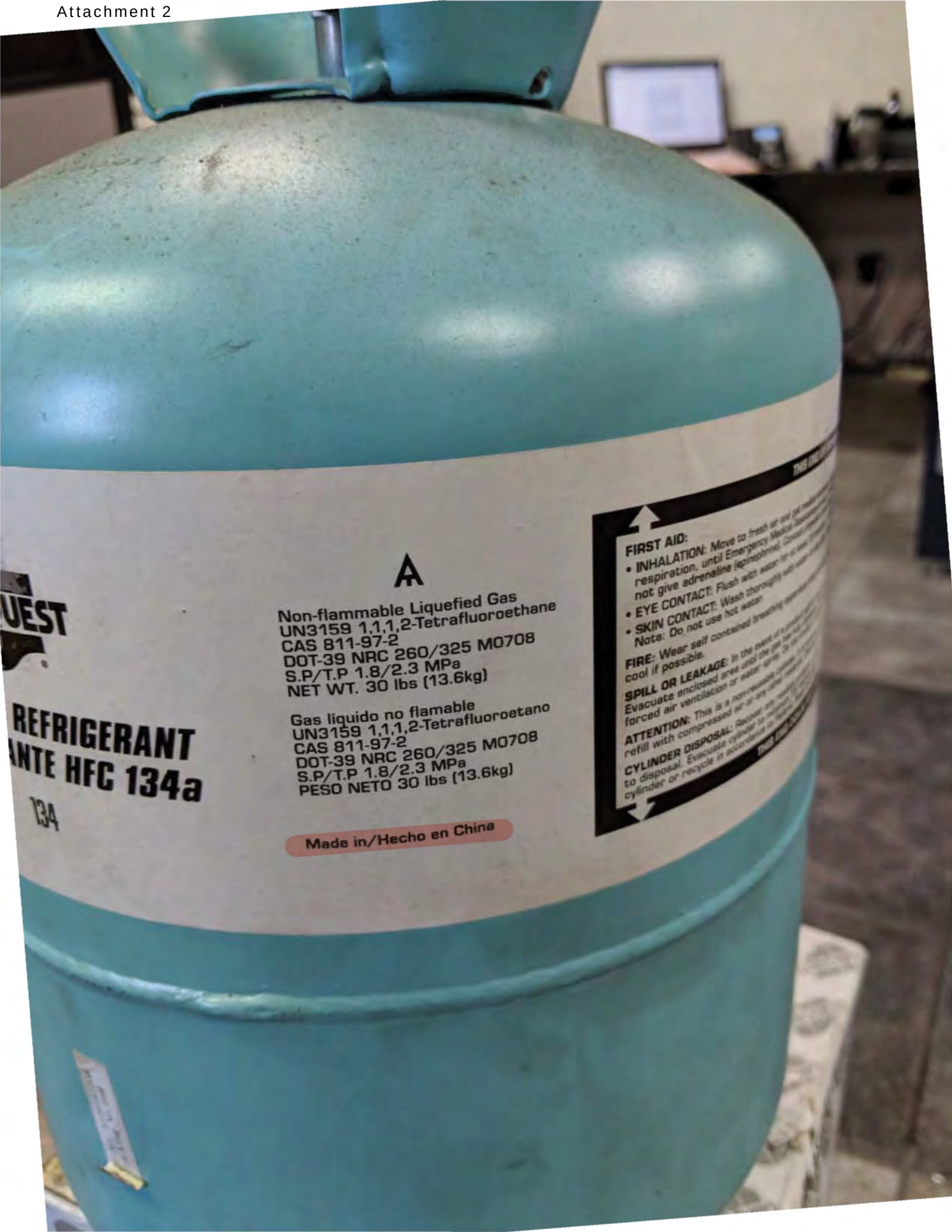


Exhibit 5

HUSCH BLACKWELL

Nithya Nagarajan
Partner

750 17th St. N.W., Suite 900
Washington, DC 20006-4675
Direct: 202.378.2409
Fax: 202.348.2319
nithya.nagarajan@huschblackwell.com

November 21, 2019

Case No. A-570-028
Total Pages: 27
Anti-Circ: Unpatented R-421A
E&C: Operations

PUBLIC VERSION
Business Proprietary Information removed from brackets in Response pages 3-5.

Honorable Wilbur Ross
Secretary of Commerce
U.S. Department of Commerce
Attention: Enforcement and Compliance
Central Records Unit, Room 1870
14th Street and Constitution Avenue, N.W.
Washington, D.C. 20230

Re: ***Hydrofluorocarbon Blends from the People's Republic of China: Response to Quantity and Value Questionnaire***

Dear Secretary Ross:

On behalf of the following companies:

1. 7680 Paradise Point LLC
2. 8105 Anderson LLC
3. 8900 Armenia LLC
4. AC Tampa Bay, Inc.
5. Assured Comfort A/C Inc.
6. BMP International, Inc.
7. BMP Refrigerants Inc.
8. E.T.S. of Tampa Bay, Inc.
9. iGas USA Inc.
10. iGas, Inc.
11. MasterJ LLC

12. MS Fund LLC
13. Organic Apple, LLC
14. Organic Orange, L.L.C.
15. U.S. Ladder, Inc.
16. U.S. Metal of Tampa, Inc.

Collectively named "BMP and its affiliates", we hereby submit the foregoing quantity and value questionnaire response in the above-referenced proceeding. Each of the company certifications are being provided after the respective company's Q&V response.

REQUEST FOR PROPRIETARY TREATMENT

Certain information contained herein is business confidential data that is proprietary. This information is enclosed with brackets ("[ ]"). Disclosure of this information would cause substantial competitive and commercial harm to the parties. Such data is marked as "Proprietary Treatment Requested." Confidential treatment, subject to administrative protective order, is requested pursuant to 19 C.F.R. § 351.105(c) (2012). Information marked as business proprietary has been so marked for one or more of the following reasons, in accordance with 19 C.F.R. §351.105(c) (2012):

(1) Business or trade secrets concerning the nature of a product or production process;
(2) Production costs (but not the identity of the production components unless a particular component is a trade secret);
(3) Distribution costs and channels of distribution;
(4) Terms of sale (but not terms of sale offered to the public);
(5) Prices of individual sales, likely sales, or other offers (but not components of prices, such as transportation, if based on published schedules, dates of sale, product descriptions except business or trade secrets described in term 1 above, or order numbers);
(6) Names of particular customers, distributors, or suppliers (but not destination of sale or designation of type of customer, distributor, or supplier, unless the designation of destination would reveal the name);
(7) In an antidumping proceeding, the exact amount of the dumping margin on individual sales;
(8) In a countervailing duty proceeding, the exact amount of benefits applied for or received by a person from each of the programs under investigation . . . ;

OFFICE OF AD/CVD ENFORCEMENT
QUANTITY AND VALUE QUESTIONNAIRE

REQUESTER(S):

7680 Paradise Point LLC
7680 Paradise Pointe Circle South
St Petersburg FL 33711

8105 Anderson LLC
8105 Anderson Road,
Tampa, FL 33634

8900 Armenia LLC
8105 Anderson Road
Tampa, Florida 33634

AC Tampa Bay, Inc.
8105 Anderson Road
Tampa, Florida 33634

Assured Comfort A/C Inc.
8105 Anderson Road
Tampa, Florida 33634

BMP International Inc.
8105 Anderson Road
Tampa, Florida 33634

BMP Refrigerants Inc.
8101 Anderson Road
Tampa, Florida 33634

E.T.S. Industry Inc.
8105 Anderson Road
Tampa, Florida 33634

iGas USA, Inc.
8105 Anderson Road
Tampa, Florida 33634

IGas, Inc.
8101 Anderson Road
Tampa, Florida 33634

MasterJ LLC
8101 Anderson Road
Tampa, Florida 33634

MS Fund LLC
8101 Anderson Road
Tampa, Florida 33634

Organic Apple, LLC
5520 Anderson Road
Tampa, Florida 33614

Organic Orange, LLC
8101 Anderson Road
Tampa, Florida 33634

U.S. Ladder, Inc.
8101 Anderson Road
Tampa, Florida 33634

U.S. Metal of Tampa, Inc.
8101 Anderson Road
Tampa, Florida 33634

Ben Meng
President
813-298-8101
813-886-7900 (fax)
ben@bmp-usa.com

REPRESENTATION: **Nithya Nagarajan**
HUSCH BLACKWELL LLP
750 17th Street, NW,
Suite 900
Washington, D.C. 20006-4675
Direct: 202.378.2409
Fax: 202.378.2319
Nithya.Nagarajan@huschblackwell.com

CASE: Hydrofluorocarbon Blends from the People's Republic of China

DATE OF INITIATION: June 18, 2019

DUE DATE FOR Q&V RESPONSE: November 14, 2019

OFFICIALS IN CHARGE: Andrew Medley, Ben Luberda

ATTACHMENT I

Please note that the Department of Commerce expects a response from each company in receipt of this questionnaire regardless of whether the company imported or exported the merchandise subject to this anti-circumvention inquiry from China into the United States.

If you are a producer/exporter in the People's Republic of China (China) of merchandise subject to this inquiry, in response to the questions below, please include only sales exported by your company directly to the United States. However, if your company made sales to third-countries for which you have knowledge that the merchandise was ultimately destined for the United States, please separately identify these sales quantities and the location (*i.e.*, countries) to which you made the sales

For all companies responding to this questionnaire, please use the invoice date when determining which sales to include within the period noted below. Generally, Commerce uses invoice date as the date of sale, as that is when the essential terms of sale are set. If you believe that another date besides the invoice date would provide a more accurate representation of your company's sales during the designated period, please report sales based on that date and provide a full explanation. Do not include any sales of merchandise subject to this inquiry manufactured in Hong Kong in your figures.

Even if you believe that you should be treated as a single entity along with other exporters, please do not report aggregate data for all of the companies that you believe should be treated as a single entity but separately report your company's quantity and value data below. Quantity and value data pertaining to other, possibly affiliated companies, that you believe should be treated together with your company as a single entity should be separately reported by those companies.

Submit all completed charts required by this questionnaire in Excel format.

1. In the chart provided in attachment II-A, please provide monthly and total quantity (in kilograms) and monthly and total value (in U.S. Dollars)[4] of your shipments (if you are an exporter and/or producer) or imports (if you are an importer) of patented and/or unpatented R-421A or other blends of R-125 and R-134a for the time period of July 1, 2011, through June 30, 2019. Provide a narrative explanation of how you aggregated these data from your books and records.

All the above companies are not importers of patented or unpatented R-421A and therefore all reported values in Attachment II-A would be [ ]. Accordingly, no separate Attachment II is being filed in conjunction with this response.

2. Identify whether you are a producer, exporter, or U.S. importer of patented/unpatented R- 421A produced in China and please specify whether your produce, export, or import patented R-421A, unpatented R-421A, or both.

All the above companies are not producers, exporters, or U.S. importers of patented or unpatented R-421A produced in China.

7680 Paradise Point LLC is a company partially owned by [ ]. 7680 Paradise Point LLC [ ] at 7680 Paradise Pointe

Circle South, St Petersburg FL 33711. 7680 Paradise Point LLC has never been involved with any business related to R421A.

8105 Anderson LLC is a company partially owned by [ ]. 8105 Anderson LLC [ ] at 8105 Anderson Road, Tampa, FL 33634. 8105 Anderson LLC has never been involved with any business related to R421A.

8900 Armenia LLC is a company that was partially owned by [ ]. 8900 Armenia LLC has never been involved with any business related to R421A. As of [ ], 8900 Armenia LLC is no longer partially owned by [ ]

AC Tampa Bay, Inc. is a company partially owned by [ ]. AC Tampa Bay, Inc. has never been involved with any business related to R421A.

Assured Comfort A/C Inc. is a company owned by [ ]. The company provides air conditioner repair services. Assured Comfort AC imported and sold refrigerant blends like R410A, R407C, R404A in the United States prior to 2014. Assured Comfort AC Inc. has never been involved in importing or selling R421A.

BMP International Inc. is a company owned by [ ] and is an importer of HFC components and does not import R421A

BMP Refrigerants Inc. is a company registered by [ ]. However, the business is not now nor has it ever been operational. BMP Refrigerants Inc. has never been involved with any business related to R421A

E.T.S. Industry Inc. was a [ ] but it was [ ]. E.T.S. Industry Inc. was never involved with any business related to R421A.

iGas USA, Inc. is partially owned by [ ] and is an importer of HFC components and does not import R421A

IGas, Inc. is a company registered by [ ] but the company has [ ]. iGas, Inc was registered to protect the iGas USA brand and to prevent other parties from registering a name similar to iGas USA. iGas, Inc. has never been involved with any business related to R421A.

MasterJ LLC is a company registered by [ ]. However the company [ ]. MasterJ LLC has never been involved with any business related to R421A.

MS Fund LLC is a company registered by [ ]. However, the company [ ]. MS Fund LLC has never been involved with any business related to R421A.

Organic Apple, LLC is a company partially owned by [ ]. Organic Apple, LLC [ ] at 5520 Anderson Road, Tampa, FL Organic Apple, LLC has never been involved with any business related to R421A

Organic Orange, LLC is a company registered by [ ]. However, the company [ ]. Organic Orange LLC has never been involved with any business related to R421A.

U.S. Ladder, Inc. is a company registered by [ ]. However, the company [ ]. U.S. Ladder, Inc. has never been involved with any business related to R421A.

U.S. Metal of Tampa, Inc. is a company registered by [ ]. However, the company [ ]. U.S. Metal of Tampa, Inc. has never been involved with any business related to R421A.

3. If you are a producer and/or exporter of unpatented R-421A in China, identify your top five U.S. importers. Fill in the chart provided in attachment II-B with the monthly quantities and values of your shipments of unpatented R-421A to each of your top five U.S. importers.

None of the above companies are producers and/or exporters of patented/unpatented R-421A.

4. If you are a U.S. importer of unpatented R-421A produced in China, identify your top five Chinese producers/exporters. Fill in the chart provided in attachment II-C with the monthly quantities and values of your purchases of unpatented R-421A from each of your top five Chinese producers/exporters.

None of the above companies are U.S. importers of patented or unpatented R-421A or other blends of R-125 and R134A. Accordingly, these entities are not completing Table II-C.

5. State whether you are affiliated with any:

   a. producers of unpatented R-421A in China;
   b. exporters of unpatented R-421A in China; or
   c. importers of unpatented R-421A produced in China into the United States.

   If yes, please identify those producers, exporters, or importers.

Response:

All the above companies are affiliated with the following importers and users of R-421A produced in China into the United States.

LM Supply INC
Cool Master U.S.A. LLC.
BMP USA LLC

All three affiliated companies are submitting separate responses to this Quantity and Value questionnaire.

6. Provide the blend formula for your imports/exports of patented/unpatented R-421A. If you import/export more than one blend formula as R-421A, list all of them.

Response:

None of the above companies import or export patented or unpatented R-421A.

7. State whether you hold the patent to, or are a licensed producer, exporter, importer, or seller of **patented** R-421A.

Response:

None of the above companies import patented R421A.

Please respond to questions 8 through 11 (below) only if you are a U.S. importer of unpatented R- 421A produced in China into the United States. Producers/exporters need not respond to questions 8 through 11.

8. Provide a detailed narrative response as to what your company does with the imported unpatented R-421A (including, but not limited to, whether your company, or another company on behalf of your company, blends it with HFC components (*e.g.*, R-32, R-125, R-134a) to create other HFC blends, resells the unpatented R-421A, etc.).

Response:

As stated above, none of the above companies are importers of unpatented R-421A produced in China therefore per the Department's instructions, these entities are not responding to Questions 8 through 11.

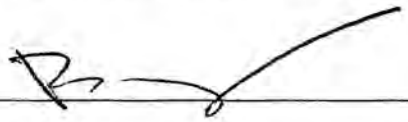
9. If your company, or another company on behalf of your company, blends the unpatented R-421A with HFC components, identify all HFC blends (*e.g.*, R-404A, R-410A, R-507A) your company produces using the imported unpatented R-421A. Please also identify if the HFC blends are then sold in the United States.

10. If your company, or another company on behalf of your company, blends the imported unpatented R-421A with HFC components to create HFC blends, complete the chart in attachment II-D, which details the monthly quantities and values of each HFC blend identified in question 7 using the imported unpatented R-421A for the period of July 1, 2011, through June 30, 2019.

11. If your company resells the unpatented R-421A, please identify the customers of the resold unpatented R-421A, and please explain whether, to the best of your knowledge, these customers are involved in the blending of the unpatented R-421A with HFC components to create HFC blends which are then sold in the United States.

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **7680 Paradise Point LLC.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **7680 Paradise Point LLC.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: 

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **8900 Armenia LLC.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **8900 Armenia LLC.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **AC Tampa Bay, Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **AC Tampa Bay, Inc.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **Assured Comfort A/C Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November** 21, **2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **Assured Comfort A/C, Inc.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **BMP International Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November** 21, **2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **BMP International Inc.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **BMP Refrigerants Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November** 21, **2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **BMP Refrigerants Inc.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **E.T.S. Industry Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **E.T.S. Industry Inc.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: 

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **iGas Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **iGas Inc.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **MasterJ LLC** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **MasterJ LLC** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **MS Fund, LLC** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **MS Fund, LLC** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **Organic Apple, LLC** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **Organic Apple, LLC** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **Organic Orange, LLC** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **Organic Orange, LLC** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **U.S. Metal of Tampa, Inc.,** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 21, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **U.S. Metal of Tampa, Inc.,** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed at **U.S. Ladder, Inc.,** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November** 21, **2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **U.S. Ladder, Inc.,** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

COMPANY CERTIFICATION

I, **Ben Meng, Owner,** currently employed by **iGas USA Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November** 21, **2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **iGas USA Inc.** contained in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 21, 2019

Exhibit 6

UNITED STATES DEPARTMENT OF COMMERCE
International Trade Administration
Washington, D.C. 20230

A-570-028
CIRC – HFC Components
~~**Proprietary Document**~~ **Public Version**
AD/CVD OII: BAL

DATE: April 3, 2020

MEMORANDUM TO: The File

THROUGH: Andrew Medley
Program Manager, Office II
AD/CVD Operations

FROM: Benjamin A. Luberda
Program Analyst, Office II
AD/CVD Operations

SUBJECT: Anti-Circumvention Inquiry of Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China – HFC Components: Business Proprietary Memorandum for BMP

I. Summary

In response to a request from the American HFC Coalition (the petitioner),[1] the Department of Commerce (Commerce) initiated an anti-circumvention inquiry of the antidumping duty (AD) order on hydrofluorocarbon (HFC) blends from the People's Republic of China (China), pursuant to section 781(a) of the Tariff Act of 1930, as amended (the Act) and 19 CFR 351.225(g).[2] Based on the information submitted by interested parties and our analysis in the Preliminary Decision Memorandum (PDM),[3] Commerce preliminarily determines that imports of HFC components difluoromethane (R-32), pentafluoroethane (R-125), and 1,1,1-trifluoroethane (R-143a), that are exported from China and further processed in the United States into HFC blends, are circumventing the AD order on HFC blends from China,[4] as provided by section 781(a) of the Act. Because Commerce's findings regarding certain statutory criteria under

[1] *See* Petitioner's Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Request to Initiate Anti-Circumvention Inquiry Pursuant to Section 781(a) of the Act," dated April 4, 2019. The American HFC Coalition is comprised of the following companies: Arkema Inc., The Chemours Company FC LLC, Honeywell International Inc., and Mexichem Fluor Inc.

[2] *See Hydrofluorocarbon Blends from the People's Republic of China: Initiation of Anti-Circumvention Inquiry of Antidumping Duty Order; Unpatented R-421A*, 84 FR 28281 (June 18, 2019).

[3] *See* Memorandum, "Preliminary Decision Memorandum for Anti-Circumvention Inquiry of the Antidumping Duty Order on Hydrofluorocarbon Blends from the People's Republic of China: HFC Components," dated concurrently with this memorandum (PDM).

[4] *See Hydrofluorocarbon Blends from the People's Republic of China: Antidumping Duty Order*, 81 FR 55436 (August 19, 2016) (*Order*).

the value of components as a percentage of U.S. value, because R-134a is not subject to this inquiry, as it is subject to its own AD order.[43]

Using BMP's submitted data, and the calculated surrogate values, we calculated the below percentages of the Chinese origin inputs (excluding, R-134a), compared to the value of merchandise sold in the United States, on a per-kilogram basis:

- R-404A: 173.44%
- R-407A: 112.95%
- R-407C: 87.10%
- R-410A: 214.27%
- R-507: 190.83%
- Weighted Average: 188.40%

In this anti-circumvention inquiry, for all five blends, the percentages of the value of the Chinese inputs are significantly higher than the U.S. value of the finished merchandise. *See* Attachment 2 of this memorandum. Thus, we find that value of the parts or components produced in the foreign country makes up a significant portion of the total value of the merchandise sold in the United States.

III. Analysis of the Pattern of Trade and Sourcing under Section 781(a)(3) of the Act

(A) Pattern of Trade, Including Sourcing Patterns

BMP's reported data shows a clear shift in patterns of trade. First, BMP has consistently shifted importers for its imports of HFC components. BMP's Q&V questionnaire response shows that between August 2016 and June 2019, BMP used at least four[44] affiliated importers to import HFC components from China, never using more than [ ].[45]

Moreover, BMP shifted its pattern of trade with the imposition of the *Order*. BMP reports that BMP International, LM Supply, Cool Master, and Assured Comfort were importing HFC blends into the United States from China.[46] Exhibit 24 of BMP's January 24, 2020 IQR shows that in 2016, BMP imported [ ] Kg of HFC blends subject to the *Order* on HFC blends from China, [ ] percent of which were imported in or before the month the *Order* took effect (*i.e.*,

[43] *See 1,1,1,2 Tetrafluoroethane (R-134a) from the People's Republic of China: Antidumping Duty Order*, 82 FR 18422 (April 19, 2017).
[44] These importers are BMP International, BMP USA, Cool Master, and iGas. Additionally, as noted above, BMP reports that Assured Comfort imported HFC components in 2016, but failed to place any data on the record regarding these imports.
[45] *See* BMP Q&V Response.
[46] *See* BMP January 24, 2020 IQR at 3-5

August 2016).[47] In 2017, this number dropped to [ ] Kg, and [ ] in 2018 or 2019.[48] However, one of BMP's companies, Cool Master, began importing [ ].[49] Conversely, BMP only began importing HFC components the month the *Order* came into effect and has continued since then, reaching a peak of [ ] Kg of imported HFC components from China in [ ].[50] Thus, BMP's patterns of trade clearly shifted to avoid the duties placed upon HFC blends with the enactment of the *Order*. *See* Attachment III of this memorandum.

(B) Affiliation

In September 2018, BMP USA stopped all business operations with respect to the importation, production, or sale of refrigerants and all of these operations transferred to iGas, which began operations in October 2018.[51] iGas is partially-owned ([ ] percent) by a Chinese company, Zhejiang Juhua Co., Ltd. (Juhua), after an initial contribution of $[ ] in April 2018.[52] Juhua has numerous subsidiaries, located in China, that produce and/or export HFC components and subject blends, including Zhejiang Quzhou Juxin Fluorine Chemical Co., Ltd. (Juxin), Zhejiang Quhua Fluor-Chemistry Co., Ltd., and Zhejiang Quzhou Lianzhou Refrigerants Co., Ltd.[53] Because of the common ownership greater than five percent by Juhua in both iGas and Juhua's subsidiaries, iGas, and thus BMP, are affiliated with these companies under section 771(33) of the Act and 19 CFR 351.102(b)(3). Moreover, BMP did not disclose its affiliation with Juhua's subsidiaries. Thus, record evidence supports finding affiliation a factor of circumvention for BMP.

(C) Whether Imports in the United States Have Increased After the Initiation of the Investigation Which Resulted in the Issuance of the Order

BMP provided statistics of its imports of HFC components from July 1, 2011, to June 30, 2019,[54] and production of finished HFC blends for the period January 1, 2016, to June 31, 2019.[55] According to BMP's submitted data, from 2016 to 2019, (*i.e.*, after the *Order*) imports of HFC components, and production of finished blends using the imported components, increased.[56] Further, record evidence shows that BMP only imported HFC components after publication of

[47] *Id.* at Exhibit 24.
[48] *Id.*
[49] *Id.* at 12 and Exhibits 7 and 27.
[50] *See* BMP Q&V Response.
[51] *See* BMP January 24, 2020 IQR at 3, 16, and 33.
[52] *Id.* at 19 and Exhibit 14.
[53] *See* Juxin's January 24, 2020, Initial Questionnaire Response at Exhibit I-1.1
[54] *See* BMP Q&V Response.
[55] *See* BMP's Letter, "Hydrofluorocarbon Blends from the People's Republic of China: Resubmission of Exhibit 26," dated February 24, 2020, at Exhibit 26. While we did not ask BMP for data with respect to its blending of HFC blends using Chinese-origin HFC components from before January 1, 2016, BMP reported that it began [ ], and, thus, did not have any production of HFC blends before this period. *See* BMP January 24, 2020 IQR at 22.
[56] *See* BMP January 24, 2020 IQR at 3, stating BMP International imported refrigerant into the United States. BMP International Inc. imported HFC Blends produced in China, such as R410A, R404A, R407A, R407C and R507. "Beginning in August 2016, BMP International also imported HFC components [ ] produced in China. After importation the HFC components were [ ].

Exhibit 7

Electronic Articles of Organization For Florida Limited Liability Company

L19000115924
FILED 8:00 AM
April 29, 2019
Sec. Of State
ccave

Article I

The name of the Limited Liability Company is:

GOLDEN G IMPORTS LLC

Article II

The street address of the principal office of the Limited Liability Company is:

6415 MONETERY BLVD
TAMPA, FL. 33625

The mailing address of the Limited Liability Company is:

6415 MONETERY BLVD
TAMPA, FL. 33625

Article III

The name and Florida street address of the registered agent is:

ROBIN A PUSKAR
6415 MONETERY BLVD
TAMPA, FL. 33625

Having been named as registered agent and to accept service of process for the above stated limited liability company at the place designated in this certificate, I hereby accept the appointment as registered agent and agree to act in this capacity. I further agree to comply with the provisions of all statutes relating to the proper and complete performance of my duties, and I am familiar with and accept the obligations of my position as registered agent.

Registered Agent Signature: ROBIN PUSKAR

L19000115924
FILED 8:00 AM
April 29, 2019
Sec. Of State
ccave

Article IV

The name and address of person(s) authorized to manage LLC:

Title: MGR
ROBIN A PUSKAR
6415 MONETERY BLVD
TAMPA, FL. 33625

Article V

The effective date for this Limited Liability Company shall be:

04/29/2019

Signature of member or an authorized representative

Electronic Signature: ROBIN PUSKAR

I am the member or authorized representative submitting these Articles of Organization and affirm that the facts stated herein are true. I am aware that false information submitted in a document to the Department of State constitutes a third degree felony as provided for in s.817.155, F.S. I understand the requirement to file an annual report between January 1st and May 1st in the calendar year following formation of the LLC and every year thereafter to maintain "active" status.

Attachment 2

DESCARTES Datamyne

USA Bills Import HOUSES

Bill of Lading Number	UULNNB1904AC808
Port of Departure	NINGPO,NING BO,CHINA MAINLAND
World Region by Port of Departure	EASTERN ASIA
Port of Arrival	**LOS ANGELES,CA**
US Region	WEST
Carrier	(UULN) US UNITED LOGISTICS (NINGBO) INC

Arrival Date	05/07/2019
Estimated Arrival Date	04/27/2019
Vessel	EVER LIBRA
Vessel Country	TAIWAN
Voyage	0852E
IMO Code	9595486
Master/House	H (House)
Bill of Lading Master	EGLV143986724386
Place of Receipt Declared	NINGBO CHINA

Weight	72,000 K
Quantity	4 TNK
Measure	0
In bond entry type	
Foreign Destination	
Mode of Transport	VESSEL. CONTAINERIZED.

Country of Origin	CHINA
World Region by Origin Country	EASTERN ASIA
Metric Tons	72.0

Consignee	GOLDEN G IMPORTS LLC, FL
Consignee's State	FLORIDA, FL
Consignee's City	TAMPA, FL
Consignee's Zip Code	33625

Shipper	QUZHOU JUXIN FLUORINE CHEMICAL CO (CN)

Shipper Declared	Consignee Declared
QUZHOU JUXIN FLUORINE CHEMICAL CO	**GOLDEN G IMPORTS LLC**
QUZHOU,	6415 MONTEREY BLVD
ZHEJIANG	TAMPA
CN	FL
	33625
	US

DESCARTES Datamyne

USA Bills Import HOUSES

Notify	
GOLDEN G IMPORTS LLC	6415 MONTEREY BLVD TAMPA FL 33625 US

HS	Teus Quantity	Container Quantity	Metric Tons
290330 - FLUORINATED, BROMINATED OR IODINATED DERIVATIVES OF ACYCLIC	4.00	4.00	72.00
Total	**4.00**	**4.00**	**72.00**

Container	Pieces	Description	Harmonized
EURU5149595	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
EURU5149790	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
EURU5149804	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
EURU5245937	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	

Container	Marks & Numbers
EURU5149595	PO NO. IGAS-190403 N/M
EURU5149790	PO NO. IGAS-190403 N/M
EURU5149804	PO NO. IGAS-190403 N/M
EURU5245937	PO NO. IGAS-190403 N/M

DESCARTES Datamyne

USA Bills Import HOUSES

Bill of Lading Number	UULNNB1904AC932
Port of Departure	NINGPO,NING BO,CHINA MAINLAND
World Region by Port of Departure	EASTERN ASIA
Port of Arrival	**LOS ANGELES,CA**
US Region	WEST
Carrier	(UULN) US UNITED LOGISTICS (NINGBO) INC

Arrival Date	05/05/2019
Estimated Arrival Date	04/20/2019
Vessel	EVER LENIENT
Vessel Country	UNITED KINGDOM
Voyage	0853E
IMO Code	9604146
Master/House	H (House)
Bill of Lading Master	EGLV143986724645
Place of Receipt Declared	NINGBO CHINA

Weight	180,000 K
Quantity	10 TNK
Measure	0
In bond entry type	
Foreign Destination	
Mode of Transport	VESSEL. CONTAINERIZED.

Country of Origin	CHINA
World Region by Origin Country	EASTERN ASIA
Metric Tons	180.0

Consignee	GOLDEN G IMPORTS LLC, FL
Consignee's State	FLORIDA, FL
Consignee's City	TAMPA, FL
Consignee's Zip Code	33625

Shipper	QUZHOU JUXIN FLUORINE CHEMICAL CO (CN)

Shipper Declared	Consignee Declared
QUZHOU JUXIN FLUORINE CHEMICAL CO	**GOLDEN G IMPORTS LLC**
QUZHOU,	6415 MONTEREY BLVD
ZHEJIANG	TAMPA
CN	FL
	33625
	US

DESCARTES Datamyne

USA Bills Import HOUSES

Notify	
GOLDEN G IMPORTS LLC	6415 MONTEREY BLVD TAMPA FL 33625 US

HS	Teus Quantity	Container Quantity	Metric Tons
290330 - FLUORINATED, BROMINATED OR IODINATED DERIVATIVES OF ACYCLIC	10.00	10.00	180.00
Total	**10.00**	**10.00**	**180.00**

Container	Pieces	Description	Harmonized
AAMU7000910	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7000925	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7000930	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7000951	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7000972	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7000988	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7000993	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7001048	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7001074	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	
AAMU7001536	1	REFRIGERANT GAS R125 UN NO. 3220 CLASS 2.2 .	

DESCARTES Datamyne

USA Bills Import HOUSES

Container	Marks & Numbers
AAMU7000910	PO NO. IGAS-190403 N/M
AAMU7000925	PO NO. IGAS-190403 N/M
AAMU7000930	PO NO. IGAS-190403 N/M
AAMU7000951	PO NO. IGAS-190403 N/M
AAMU7000972	PO NO. IGAS-190403 N/M
AAMU7000988	PO NO. IGAS-190403 N/M
AAMU7000993	PO NO. IGAS-190403 N/M
AAMU7001048	PO NO. IGAS-190403 N/M
AAMU7001074	PO NO. IGAS-190403 N/M
AAMU7001536	PO NO. IGAS-190403 N/M

Exhibit 8

Exhibit 8-A

Detail by Street Address

Florida Profit Corporation
IGAS INC

Filing Information

Document Number	P18000068833
FEI/EIN Number	36-4897416
Date Filed	08/10/2018
Effective Date	08/20/2018
State	FL
Status	ACTIVE

Principal Address

8105 ANDERSON ROAD
TAMPA, FL 33634

Mailing Address

8105 ANDERSON ROAD
TAMPA, FL 33634

Registered Agent Name & Address

MENG, XIANBIN
8101 ANDERSON ROAD
TAMPA, FL 33634

Officer/Director Detail

Name & Address

Title P

MENG, XIANBIN
8101 ANDERSON ROAD
TAMPA, FL 33634

Annual Reports

Report Year	Filed Date
2019	04/30/2019

Document Images

04/30/2019 -- ANNUAL REPORT	View image in PDF format
08/10/2018 -- Domestic Profit	View image in PDF format

Detail by Entity Name

Florida Profit Corporation
BMP INTERNATIONAL, INC.

Filing Information

Document Number	P07000049143
FEI/EIN Number	20-8916439
Date Filed	04/23/2007
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	03/27/2015
Event Effective Date	NONE

Principal Address

8101 Anderson Road
Tampa, FL 33634

Changed: 03/24/2018

Mailing Address

P.O. BOX 15762
TAMPA, FL 33684

Changed: 01/08/2017

Registered Agent Name & Address

Meng, Xianbin
8101 Anderson Road
Tampa, FL 33634

Name Changed: 04/01/2017

Address Changed: 03/24/2018

Officer/Director Detail

Name & Address

Title P

Meng, Xianbin
8101 Anderson Road
Tampa, FL 33634

Title VP

Shi, Linna
8101 Anderson Road
Tampa, FL 33634

Annual Reports

Report Year	Filed Date
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2018	03/24/2018
2019	04/30/2019

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04/01/2017 -- AMENDED ANNUAL REPORT	View image in PDF format
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03/26/2016 -- ANNUAL REPORT	View image in PDF format
03/27/2015 -- Amendment	View image in PDF format
01/09/2015 -- ANNUAL REPORT	View image in PDF format
09/10/2014 -- ANNUAL REPORT	View image in PDF format
04/09/2013 -- ANNUAL REPORT	View image in PDF format
03/22/2012 -- ANNUAL REPORT	View image in PDF format
04/21/2011 -- ANNUAL REPORT	View image in PDF format
03/18/2011 -- Amendment	View image in PDF format
03/29/2010 -- ANNUAL REPORT	View image in PDF format
04/29/2009 -- ANNUAL REPORT	View image in PDF format
01/18/2008 -- ANNUAL REPORT	View image in PDF format
04/23/2007 -- Domestic Profit	View image in PDF format

Detail by Entity Name

Florida Profit Corporation
BMP REFRIGERANTS INC

Filing Information

Document Number	P17000101013
FEI/EIN Number	N/A
Date Filed	12/27/2017
Effective Date	01/02/2018
State	FL
Status	ACTIVE

Principal Address

8105 ANDERSON ROAD
TAMPA, FL 33634

Mailing Address

PO BOX 15762
TAMPA, FL 33684

Registered Agent Name & Address

MENG, XIANBIN
8105 ANDERSON ROAD
TAMPA, FL 33634

Officer/Director Detail

Name & Address

Title P

MENG, XIANBIN
8105 ANDERSON ROAD
TAMPA, FL 33634

Title VP

BMP USA INC
8105 ANDERSON ROAD
TAMPA, FL 33634

Annual Reports

Report Year	Filed Date
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Detail by Entity Name

Florida Profit Corporation
BMP USA, INC.

Filing Information

Document Number	P13000101162
FEI/EIN Number	APPLIED FOR
Date Filed	12/23/2013
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	03/27/2015
Event Effective Date	NONE

Principal Address

8105 Anderson Road
TAMPA, FL 33634

Changed: 03/24/2018

Mailing Address

P.O. Box 15762
TAMPA, FL 33684

Changed: 09/10/2014

Registered Agent Name & Address

MENG, XIANBIN
8105 anderson road
TAMPA, FL 33634

Address Changed: 03/24/2018

Officer/Director Detail

Name & Address

Title P

MENG, XIANBIN
8105 anderson road
TAMPA, FL 33634

Title V

SHI, LINNA
8105 anderson Road
TAMPA, FL 33634

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09/10/2014 -- ANNUAL REPORT	View image in PDF format
12/23/2013 -- Domestic Profit	View image in PDF format

Florida Department of State, Division of Corporations

Attachment 2

Previous List Next List
Officer/RA Name Search
Search

Officer/Registered Agent Name List

Officer/RA Name	Entity Name	Entity Number
MENG, XIANBIN	U.S. LADDER, INC.	P07000081241
MENG, XIANBIN	AC TAMPA BAY, INC.	P08000036517
MENG, XIANBIN	AC TAMPA BAY, INC.	P08000036517
MENG, XIANBIN	AC TAMPA BAY, INC.	P08000036517
MENG, XIANBIN	U.S. METAL OF TAMPA, INC.	P12000072179
MENG, XIANBIN	U.S. METAL OF TAMPA, INC.	P12000072179
MENG, XIANBIN	BMP USA, INC.	P13000101162
MENG, XIANBIN	BMP USA, INC.	P13000101162
MENG, XIANBIN	L.M. SUPPLY, INC.	P14000086193
MENG, XIANBIN	L.M. SUPPLY, INC.	P14000086193
MENG, XIANBIN	BMP REFRIGERANTS INC	P17000101013
MENG, XIANBIN	BMP REFRIGERANTS INC	P17000101013
MENG, XIANBIN	IGAS USA, INC.	P18000032862
MENG, XIANBIN	IGAS USA, INC.	P18000032862
MENG, XIN	CHINA UNICOM (AMERICAS) OPERATIONS LIMITED INC.	F17000000543
MENG, XIN	BLESSHAMPTONS LLC	L13000025315
MENG, XIN	BLESSHAMPTONS LLC	L13000025315
MENG, XIUXIA	LUCKY STAR SPA LLC	L11000124045
MENG, XIUXIA	A SHINNING STAR LLC	L12000090495
MENG, XIUXIA	A SHINNING STAR LLC	L12000090495

Previous List Next List
Officer/RA Name Search
Search

Florida Department of State DIVISION OF CORPORATIONS

Department of State / Division of Corporations / Search Records / Detail By Document Number /

Detail by Entity Name

Florida Profit Corporation
BMP INTERNATIONAL, INC.

Filing Information

Document Number	P07000049143
FEI/EIN Number	20-8916439
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04/29/2009 -- ANNUAL REPORT	View image in PDF format
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04/23/2007 -- Domestic Profit	View image in PDF format

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Florida Profit Corporation
BMP REFRIGERANTS INC

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FEI/EIN Number	NONE
Date Filed	12/27/2017
Effective Date	01/02/2018
State	FL
Status	ACTIVE

Principal Address

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TAMPA, FL 33634

Mailing Address

PO BOX 15762
TAMPA, FL 33684

Registered Agent Name & Address

MENG, XIANBIN
8105 ANDERSON ROAD
TAMPA, FL 33634

Officer/Director Detail

Name & Address

Title P

MENG, XIANBIN
8105 ANDERSON ROAD
TAMPA, FL 33634

Title VP

BMP USA INC
8105 ANDERSON ROAD
TAMPA, FL 33634

Annual Reports

No Annual Reports Filed

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Florida Department of State

Division of Corporations

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Detail by Entity Name

Florida Profit Corporation
BMP USA, INC.

Filing Information

Document Number	P13000101162
FEI/EIN Number	APPLIED FOR
Date Filed	12/23/2013
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	03/27/2015
Event Effective Date	NONE

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TAMPA, FL 33634

Changed: 03/24/2018

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Address Changed: 03/24/2018

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8105 anderson road
TAMPA, FL 33634

Title V

SHI, LINNA
8105 anderson Road
TAMPA, FL 33634

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2017	01/08/2017
2018	03/24/2018

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03/26/2016 -- ANNUAL REPORT	View image in PDF format
03/27/2015 -- Amendment	View image in PDF format
01/09/2015 -- ANNUAL REPORT	View image in PDF format
09/10/2014 -- ANNUAL REPORT	View image in PDF format
12/23/2013 -- Domestic Profit	View image in PDF format

Detail by Entity Name

Florida Profit Corporation
IGAS USA, INC.

Filing Information

Document Number	P18000032862
FEI/EIN Number	NONE
Date Filed	04/06/2018
Effective Date	04/04/2018
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	05/07/2018
Event Effective Date	NONE

Principal Address

8105 ANDERSON ROAD
TAMPA, FL 33634

Mailing Address

PO BOX 15762
TAMPA, FL 33684

Registered Agent Name & Address

MENG, XIANBIN
8101 ANDERSON ROAD
TAMPA, FL 33634

Officer/Director Detail

Name & Address

Title P

MENG, XIANBIN
8101 ANDERSON ROAD
TAMPA, FL 33634

Annual Reports

No Annual Reports Filed

Document Images

05/07/2018 -- Amendment	View image in PDF format
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Exhibit 8-B

Supply Chain Intelligence about:

Puremann Inc.

Company profile United States

See Puremann Inc.'s products and suppliers

Thousands of companies like you use Panjiva to research suppliers and competitors.

Request a Demo

Reveal patterns in global trade

Top countries/regions that supply Puremann Inc.
Origin Country/Region

- South Korea
  119 shipments (100.0%)

Easy access to trade data

U.S. Customs records organized by company

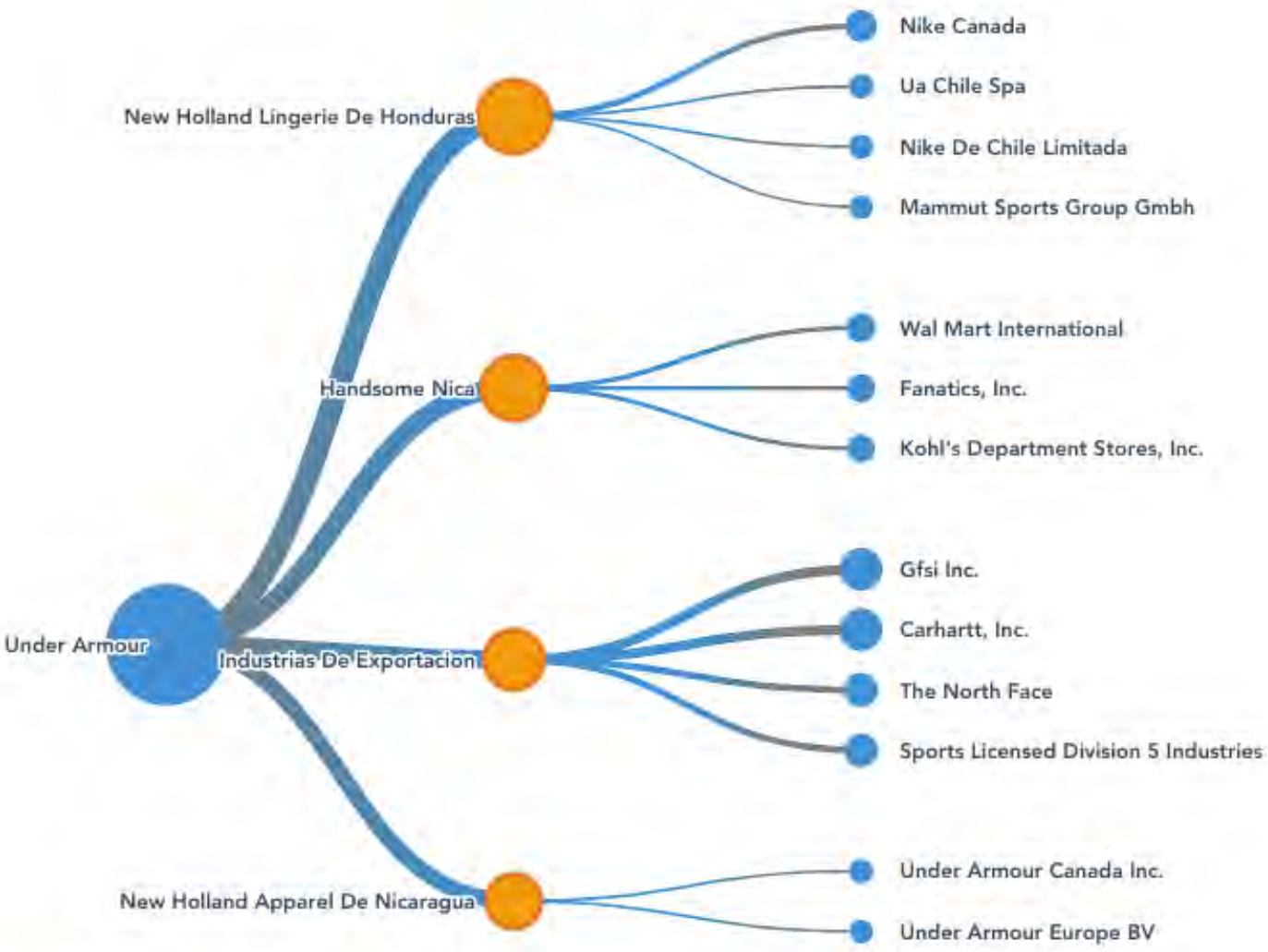
119 U.S. shipments available for Puremann Inc., updated weekly since 2007

Date	Buyer	Supplier	Details	43 more fields
2021-01-24	Puremann Inc.	Puremann Inc.	REFRIGERANT GAS R134A CLASS2. 2 UN NO3159 REFRIGERANT GAS R134A CLASS2. 2 UN NO3159	Bill of lading
2021-01-06	Puremann Inc.	Puremann Inc.	REFRIGERANT GAS R134A CLASS2. 2 UN NO3159	Bill of lading
2020-12-28	Puremann Inc.	Puremann Inc.	REFRIGERANT GAS R134A CLASS2. 2 UN NO3159 REFRIGERANT GAS R134A CLASS2. 2 UN NO3159 REFRIGERANT GAS R134A CLASS2. 2 UN NO3159	Bill of lading

Shipment data shows what products a company is trading and more. Learn more

Explore trading relationships hidden in supply chain data

Supply chain map



See all 2 suppliers of Puremann Inc.

Contact information for Puremann Inc.

Address
4912 W. KNOX ST. TAMPA FL3 3634 USA FAX 81 TE3 545-1491 PERSON IN CHARGE BEN MEN

Top products

1. refrigerant gas

Top HS Codes

1. HS 29 - Organic chemicals
2. HS 38 - Chemical products n.e.c.

See more goods shipped on Panjiva

Sample Bill of Lading

119 shipment records available

Date
2021-01-24
Shipper Name
Puremann Inc,
Shipper Address
332-13 MAEHWAGOOIN-RO JANGAN-MYEON BOEUN CHUNGBUK 28916 SOUTH KO TEREA
FAX. 82
Consignee Name
Puremann Inc.
Consignee Address
4912 W. KNOX ST. TAMPA FL3 3634 USA FAX 81 TE3 545-1491 PERSON IN CHARGE BEN MEN
Notify Party Name
Puremann Inc.
Notify Party Address
4912 W KNOX ST. SUITE 100, TAMPA FL33634 US
Weight
46272
Weight Unit
K
Weight in KG
46272.0
Quantity
2720
Quantity Unit
CYL
Shipment Origin
South Korea
Details
46,272.0 kg
From port: Busan, South Korea
To port: Tampa, Florida
Place of Receipt
Busan South Korea
Foreign Port of Lading
Busan, South Korea
U.S. Port of Unlading
Tampa, Florida
U.S. Destination Port
Tampa, Florida
Commodity
REFRIGERANT GAS R134A CLASS2. 2 UN NO3159 REFRIGERANT GAS R134A CLASS2. 2 UN NO3159
Container

MSKU1363500
MSKU9003095
Carrier Name
SHANGHAI SUPREME INTERNATIONAL FREIGHT FORWARDING CO LTD
Vessel Name
NYK LYNX
Voyage Number
049E
Bill of Lading Number
SSNFSPNB20121490
Master Bill of Lading Number
MAEU911586914
Lloyd's Code
9229324
HTS Codes
HTS 2903.39

- Jobs

55 Water Street, 42nd Floor
New York, NY 10041

Request a demo

- **English**
- Español
- 中文

- Terms of Use
- Sitemap
- Privacy Policy
- Cookie Notice
- Cookie Settings
- Do Not Sell My Personal Information

Exhibit 8-C

Attachment 2

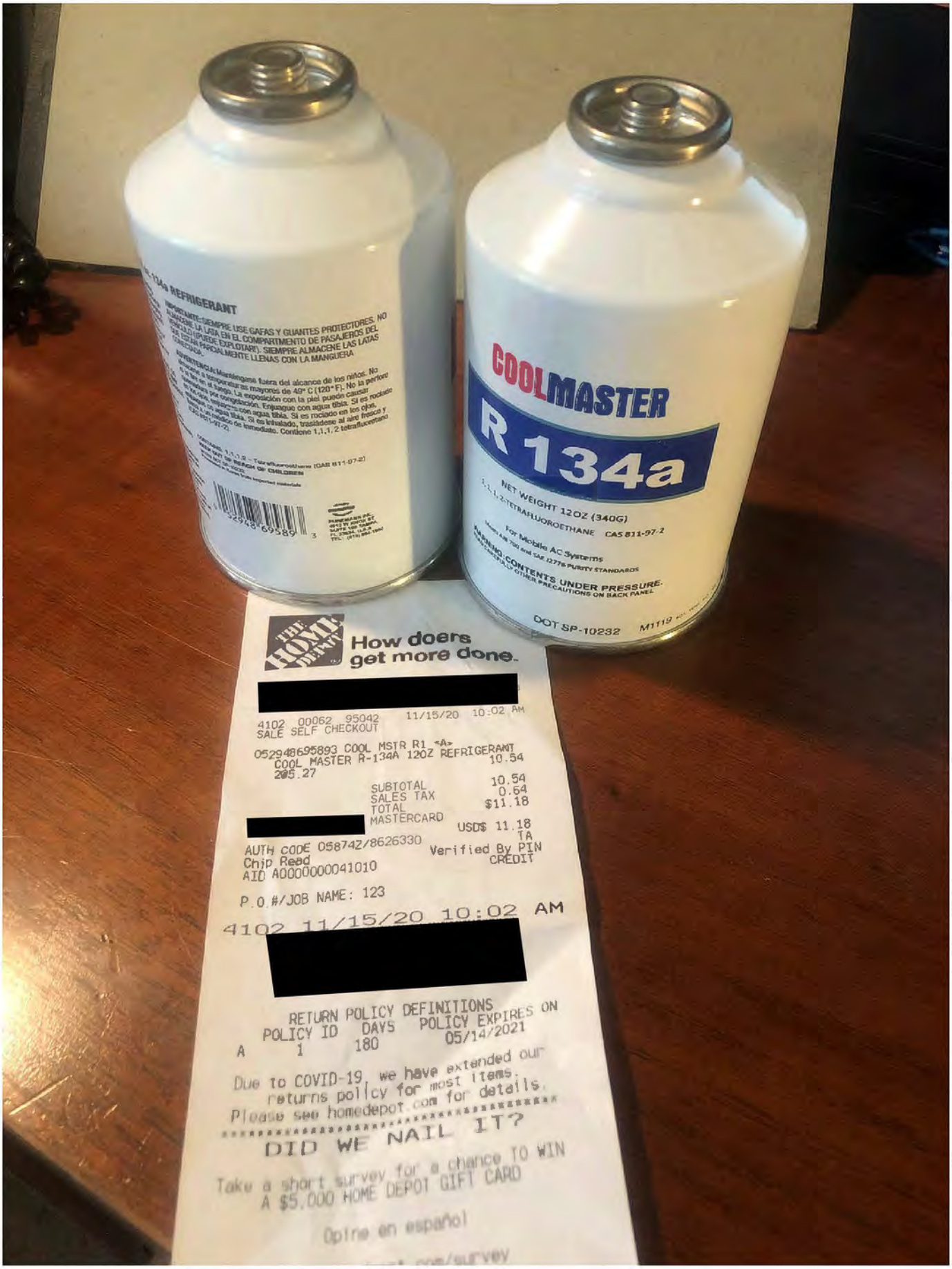


Exhibit 8-D

PureMann Inc

Company Introduction

PureMann Inc, is the only Korean company which is registered and producing eco-friendly refrigerant gases like R134a, R410A and so on. The existing refrigerant companies in Korea have a shape like normal trading company. They import gases from China and recharge in small cylinders to distribute in domestic market. But we import raw materials from China or India and produce high quality refrigerant gases in Korea factory through an automative refining and mixing process. Though we have not been in existence for long period, we took a contract and supplied to many companies in various industrial fields. A refrigerant gas is used in various fields. Especially, Automobile(Manufacturing & After service market), household, office and industrial cooling air conditioning system market is very huge and intense in the world. With a high quality and Korea premium, PureMann is trying to advance into the big market.





Main Products

Refrigerants gas R-134a

Depend on quantity

Refrigerants gas R-410A

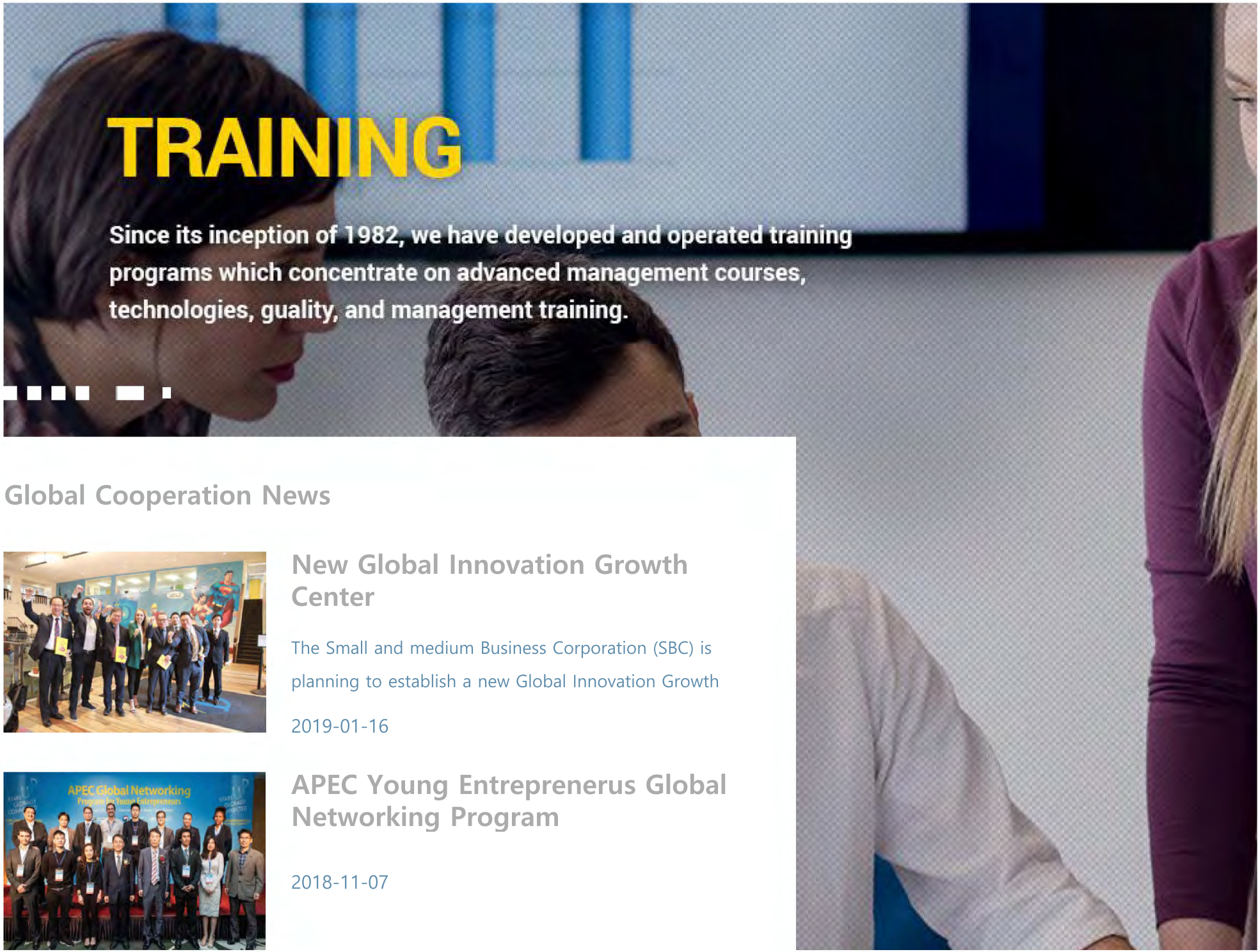
Depend on quantity

Refrigerants gas R-404A

Depend on quantity

Extinguishing agent R-125

Depend on quantity



Global Cooperation News

New Global Innovation Growth Center

The Small and medium Business Corporation (SBC) is planning to establish a new Global Innovation Growth

2019-01-16

APEC Young Entreprenerus Global Networking Program

2018-11-07

SME NEWS

MOU signed between SBC-KRX-KB Securities

On Nov. 29, 2018, The Small and medium Business Corporation (SBC) signed an MOU with

2019-01-16

2018 Job Fair Gyeongsang

Vice President of SB '2018 Job Fair' in Gy

2018-11-07

SME Innovation Center | Gobiz KOREA | Ministry of SMEs and Startups | KOREA TOURISM ORGANIZATION | KOREA.ne Gateway to Kore

Exhibit 8-E

HUSCH BLACKWELL

Nithya Nagarajan
Partner

750 17th St. N.W., Suite 900
Washington, DC 20006-4675
Direct: 202.378.2409
Fax: 202.348.2319
nithya.nagarajan@huschblackwell.com

November 12, 2019

Case No. A-570-028
Total Pages: 169
Anti-Circ: HFC Components
E&C: Operations

PUBLIC VERSION
Business Proprietary Information removed from brackets in Q&V Response pages 2-5 and Attachments II-A to II-D.

Honorable Wilbur Ross
Secretary of Commerce
U.S. Department of Commerce
Attention: Enforcement and Compliance
Central Records Unit, Room 1870
14th Street and Constitution Avenue, N.W.
Washington, D.C. 20230

Re: ***Hydrofluorocarbon Blends from the People's Republic of China: Response to Quantity and Value Questionnaire***

Dear Secretary Ross:

On behalf of the following companies:

1. 7680 Paradise Point LLC
2. 8105 Anderson LLC
3. 8900 Armenia LLC
4. AC Tampa Bay, Inc.
5. Assured Comfort A/C Inc.
6. BMP International, Inc.
7. BMP Refrigerants Inc.
8. BMP USA Inc.
9. Cool Master U.S.A., L.L.C.
10. E.T.S. of Tampa Bay, Inc.
11. iGas USA Inc.

12. iGas, Inc.
13. L.M. Supply, Inc. (AKA LMJ Supply, Inc.)
14. MasterJ LLC
15. MS Fund LLC
16. Organic Apple, LLC
17. Organic Orange, L.L.C.
18. U.S. Ladder, Inc.
19. U.S. Metal of Tampa, Inc.

Collectively named "BMP and its affiliates", we hereby submit the foregoing quantity and value questionnaire response in the above-referenced proceeding. Each of the company certifications are being provided after the respective company's Q&V response.

REQUEST FOR PROPRIETARY TREATMENT

Certain information contained herein is business confidential data that is proprietary. This information is enclosed with brackets ("[ ]"). Disclosure of this information would cause substantial competitive and commercial harm to the parties. Such data is marked as "Proprietary Treatment Requested." Confidential treatment, subject to administrative protective order, is requested pursuant to 19 C.F.R. § 351.105(c) (2012). Information marked as business proprietary has been so marked for one or more of the following reasons, in accordance with 19 C.F.R. §351.105(c) (2012):

(1) Business or trade secrets concerning the nature of a product or production process;
(2) Production costs (but not the identity of the production components unless a particular component is a trade secret);
(3) Distribution costs and channels of distribution;
(4) Terms of sale (but not terms of sale offered to the public);
(5) Prices of individual sales, likely sales, or other offers (but not components of prices, such as transportation, if based on published schedules, dates of sale, product descriptions except business or trade secrets described in term 1 above, or order numbers);
(6) Names of particular customers, distributors, or suppliers (but not destination of sale or designation of type of customer, distributor, or supplier, unless the designation of destination would reveal the name);

BMP International Inc.

COMPANY CERTIFICATION

I, **Ben Meng, President,** currently employed by **BMP International Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 12, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **BMP International Inc.** in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 12, 2019

OFFICE OF AD/CVD ENFORCEMENT
QUANTITY AND VALUE QUESTIONNAIRE

REQUESTER(S): **BMP International Inc.**
8105 Anderson Road
Tampa, Florida 33634
Ben Meng, President
813-298-8101
813-889-7900
ben@bmp-usa.com

REPRESENTATION: **Nithya Nagarajan**
Partner
HUSCH BLACKWELL LLP
750 17th Street, NW,
Suite 900
Washington, D.C. 20006-4675
Direct: 202.378.2409
Fax: 202.378.2319
Nithya.Nagarajan@huschblackwell.com

CASE: Hydrofluorocarbon Blends from the People's Republic of China

DATE OF INITIATION: June 18, 2019

DUE DATE FOR Q&V RESPONSE: November 5, 2019

OFFICIALS IN CHARGE: Andrew Medley, Ben Luberda

Submit all completed charts required by this questionnaire in Excel format.

1. In the chart provided in attachment II-A, please provide monthly and total quantity (in kilograms) and monthly and total value (in U.S. Dollars)4 of your shipments (if you are an exporter and/or producer) or imports (if you are an importer) of merchandise under U.S. Harmonized Tariff Schedule (USHTS) code 2903.39.2035 ("Difluoromethane; pentafluoroethane; and 1,1,1-trifluoroethane") for the time period of July 1, 2011, through June 30, 2019. Provide a narrative explanation of how you aggregated these data from your books and records.

Response:

The monthly and total quantity and value of BMP International Inc's ("BMP International") imports is provided at Attachment II-A. BMP International Inc. maintains an [ ]. Whenever BMP International receives the Importer Security Filing ("ISF") from the exporter for an upcoming shipment, it [ ] based on the ISF and the ISF is [ ]. When the exporter sends the commercial invoice, packing list, and bill of lading, BMP International matches the invoice with the contract and records the invoice information in the [ ]. The commercial invoice, packing list and bill of lading are also linked to the [ ]. When the product is received at the warehouse, BMP International matches the quantity with the commercial invoice and records the [ ] and into the company's Quickbooks system. In order to complete the attachment, BMP International totaled the monthly quantities and values of the relevant imports based on the commercial invoice date.

2. Identify whether you are a producer, exporter, or U.S. importer of R-32, R-125, and/or R143a produced in China.

Response:

BMP International has imported R-32, R125 and R143A produced in China since [ ]. Before that BMP International imported HFC blends from China, including R410A, R404A, R407A, R407C and R507. BMP International resells all imported product in the United States. BMP International does not blend any HFC components.

3.If you are a producer and/or exporter of R-32, R-125, and/or R-143a in China, identify your top five U.S. importers. Fill in the chart provided in attachment II-B with the monthly quantities and values of your shipments under USHTS 2903.39.2035 to each of your top five U.S. importers.

Response:

Not applicable.. BMP International is not a producer or exporter of R-32, R-125 or R-143a.

4. If you are a U.S. importer of R-32, R-125, and/or R-143a produced in China, identify your top five Chinese producers/exporters. Fill in the chart provided in attachment II-C with the monthly quantities and values of your purchases under USHTS 2903.39.2035 from each of your top five Chinese producers/exporters.

Response:

The requested information is provided at Attachment II-C. This response has been aggregated in the same manner as our response to Attachment II-A. The [ ] maintained by BMP International contains the quantity and value of each import and the identity of the exporter. In order to complete the attachment, BMP International filtered the information in the [ ] to obtain the monthly quantities and values that BMP International received from [ ].

5. State whether you are affiliated with any: a. producers of HFC components R-32, R-125, and/or R-143a in China; b. exporters of HFC components R-32, R-125, and/or R-143a in China; or c. importers of HFC components R-32, R-125, and/or R-143a produced in China into the United States. If yes, please identify those producers, exporters, or importers.

Response:

BMP International is affiliated with the following importers of HFC components R-32, R-125 and R143A produced in China:

[

]

A separate response is being submitted for each of these companies.

Please respond to questions 6, 7, 8, and 9 (below) only if you are a U.S. importer of HFC components R-32, R-125, and/or R-143a produced in China into the United States. Producers/exporters need not respond to questions 6, 7, 8, and 9.

6. Provide a detailed narrative response as to what your company does with the imported HFC components (including, but not limited to, whether your company, or another company on behalf of your company, blends them to create HFC blends, resells the HFC components, etc.).

Response:

BMP International resells all HFC components to [ ]. The components are sold in ISO tanks. No HFC components or HFC blends were sold back to BMP International by [ ]. See response to question 9.

7. If your company, or another company on behalf of your company, blends the HFC components, identify all HFC blends (e.g., R-404A, R-410A, R-507A) your company produces using the imported HFC components. Please also identify if the HFC blends are then sold in the United States.

Response:

BMP International was not involved in blending the HFC components. All HFC components were sold to [ ]. See response to question 9.

8. If your company, or another company on behalf of your company, blends the imported HFC components to create HFC blends, complete the chart in attachment II-D, which details the monthly quantities and values of each HFC blend identified in question 7 using the imported HFC components for the period of July 1, 2011, through June 30, 2019.

Response:

Not applicable. BMP International does not blend HFC components. [ ] has submitted a separate response to this questionnaire with the requested information.

9. If your company resells the HFC components, please identify the customers of the resold HFC components, and please explain whether, to the best of your knowledge, these customers are involved in the blending of the HFC components to create HFC blends which are then sold in the United States.

Response:

BMP International sells HFC components to [ ]. [ ] resells some of the HFC components in the United States and also blends the HFC components to create HFC blends which are then sold in the United States.

BMP USA Inc.

COMPANY CERTIFICATION

I, **Ben Meng, President,** currently employed by **BMP USA Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 12, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **BMP USA Inc.** in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 12, 2019

OFFICE OF AD/CVD ENFORCEMENT
QUANTITY AND VALUE QUESTIONNAIRE

REQUESTER(S): **BMP USA Inc.**
8101 Anderson Road
Tampa, Florida 33634
Ben Meng, President
813-298-8101
813-889-7900
ben@bmp-usa.com

REPRESENTATION: **Nithya Nagarajan**
Partner
HUSCH BLACKWELL LLP
750 17th Street, NW,
Suite 900
Washington, D.C. 20006-4675
Direct: 202.378.2409
Fax: 202.378.2319
Nithya.Nagarajan@huschblackwell.com

CASE: Hydrofluorocarbon Blends from the People's Republic of China

DATE OF INITIATION: June 18, 2019

DUE DATE FOR Q&V RESPONSE: November 5, 2019

OFFICIALS IN CHARGE: Andrew Medley, Ben Luberda

Submit all completed charts required by this questionnaire in Excel format.

1. In the chart provided in attachment II-A, please provide monthly and total quantity (in kilograms) and monthly and total value (in U.S. Dollars) of your shipments (if you are an exporter and/or producer) or imports (if you are an importer) of merchandise under U.S. Harmonized Tariff Schedule (USHTS) code 2903.39.2035 ("Difluoromethane; pentafluoroethane; and 1,1,1-trifluoroethane") for the time period of July 1, 2011, through June 30, 2019. Provide a narrative explanation of how you aggregated these data from your books and records.

Response:

The monthly and total quantity and value of BMP USA Inc's ("BMP USA") imports is provided at Attachment II-A. BMP USA maintains an [ ] for each year. Whenever BMP USA receives the Importer Security Filing ("ISF") from the exporter for an upcoming shipment, it [ ] based on the ISF and the ISF is linked to the [ ]. When the exporter sends the commercial invoice, packing list, and bill of lading, BMP USA matches the invoice with the contract and records the invoice information in the [ ]. The commercial invoice, packing list and bill of lading are also linked to the [ ]. When the product is received at the warehouse, BMP USA matches the quantity with the commercial invoice and records the inventory information into the [ ] system. In order to complete the attachment, BMP USA totaled the monthly quantities and values of the relevant imports based on the commercial invoice date.

2.Identify whether you are a producer, exporter, or U.S. importer of R-32, R-125, and/or R143a produced in China.

Response:

BMP USA imports R-32, R125 and R143A produced in China. BMP started importing these components in [ ]. BMP USA also blends these components into HFC blends such as R410A, R404A, R407A, R407C, R507. BMP USA sells these HFC blends to [ ] in the United States.

3.If you are a producer and/or exporter of R-32, R-125, and/or R-143a in China, identify your top five U.S. importers. Fill in the chart provided in attachment II-B with the monthly quantities and values of your shipments under USHTS 2903.39.2035 to each of your top five U.S. importers.

Response:

Not applicable. BMP USA is not a producer or exporter of R-32, R-125 or R-143a.

4. If you are a U.S. importer of R-32, R-125, and/or R-143a produced in China, identify your top five Chinese producers/exporters. Fill in the chart provided in attachment II-C with the monthly quantities and values of your purchases under USHTS 2903.39.2035 from each of your top five Chinese producers/exporters.

Response:

The requested information is provided at Attachment II-C. This response has been aggregated in the same manner as our response to Attachment II-A. The [ ] maintained by BMP USA contains the quantity and value of each import and the identity of the exporter. In order to complete the attachment, BMP USA filtered the information in the [ ] by exporter name to obtain the monthly quantities and values that BMP USA received from each exporter.

5. State whether you are affiliated with any: a. producers of HFC components R-32, R-125, and/or R-143a in China; b. exporters of HFC components R-32, R-125, and/or R-143a in China; or c. importers of HFC components R-32, R-125, and/or R-143a produced in China into the United States. If yes, please identify those producers, exporters, or importers.

Response:

BMP USA is affiliated with the following importers of HFC components R-32, R-125 and R143A produced in China.

[

]

A separate response is being submitted for each of these companies.

Please respond to questions 6, 7, 8, and 9 (below) only if you are a U.S. importer of HFC components R-32, R-125, and/or R-143a produced in China into the United States. Producers/exporters need not respond to questions 6, 7, 8, and 9.

6. Provide a detailed narrative response as to what your company does with the imported HFC components (including, but not limited to, whether your company, or another company on behalf of your company, blends them to create HFC blends, resells the HFC components, etc.).

Response:

BMP USA [ ] in the United States in ISO tanks or 125lbs cylinders. BMP USA also blends these components into HFC blends such as R410A, R404A, R407A, R407C, R507. These HFC blends are packaged in ISO tanks, 30lbs cylinder or 125lbs cylinders and sold to distributors in the United States.

7. If your company, or another company on behalf of your company, blends the HFC components, identify all HFC blends (e.g., R-404A, R-410A, R-507A) your company produces using the imported HFC components. Please also identify if the HFC blends are then sold in the United States.

Response:

See response to question 6 above. BMP USA blends R404A, R407A, R407C, R410A and R507 and sells the blends to distributors in the United States. BMP USA also uses unaffiliated third-party companies [ ] and [ ] to blend R404A, R407A, R407C, R410A and R507 and then sells the HFC blends in the United States.

8. If your company, or another company on behalf of your company, blends the imported HFC components to create HFC blends, complete the chart in attachment II-D, which details the monthly quantities and values of each HFC blend identified in question 7 using the imported HFC components for the period of July 1, 2011, through June 30, 2019.

The requested information is provided at Attachment II-D. BMP USA records the quantity and value of every sale made in the United States in [ ]. Whenever BMP USA receives a purchase order from a customer, it creates an invoice in [ ] with the product item code, quantity, unit price, ship to address, bill to address, and payment terms. BMP USA's production is based on sales such that the sales information is reflective of its production. In order to complete the attachment, BMP USA summed the monthly sales quantities and values for each HFC blends

9. If your company resells the HFC components, please identify the customers of the resold HFC components, and please explain whether, to the best of your knowledge, these customers are involved in the blending of the HFC components to create HFC blends which are then sold in the United States.

Response:

BMP USA sells HFC components to the companies listed below.

[

]

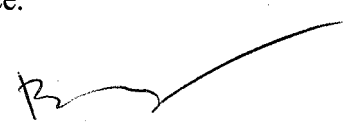
Our understanding is that the unaffiliated companies blend the HFC components to create HFC blends. BMP USA does not know what these companies do with the HFC blends, but assumes at least some of the blends are sold in the United States.

[ ] is submitting a separate response to this questionnaire with information on its operations. The other companies are not affiliated with BMP USA.

Cool Master U.S.A., LLC

COMPANY CERTIFICATION

I, **Ben Meng, President,** currently employed by **Cool Master U.S.A., LLC** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 12, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **Cool Master U.S.A., LLC** in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: 

Date: November 12, 2019

OFFICE OF AD/CVD ENFORCEMENT
QUANTITY AND VALUE QUESTIONNAIRE

REQUESTER(S): **Cool Master U.S.A., LLC**
8101 Anderson Road
Tampa, Florida 33634
Ben Meng, President
813-298-8101
813-889-7900
ben@bmp-usa.com

REPRESENTATION: **Nithya Nagarajan**
Partner
HUSCH BLACKWELL LLP
750 17th Street, NW,
Suite 900
Washington, D.C. 20006-4675
Direct: 202.378.2409
Fax: 202.378.2319
Nithya.Nagarajan@huschblackwell.com

CASE: Hydrofluorocarbon Blends from the People's Republic of China

DATE OF INITIATION: June 18, 2019

DUE DATE FOR Q&V RESPONSE: November 5, 2019

OFFICIALS IN CHARGE: Andrew Medley, Ben Luberda

Submit all completed charts required by this questionnaire in Excel format.

1. In the chart provided in attachment II-A, please provide monthly and total quantity (in kilograms) and monthly and total value (in U.S. Dollars) of your shipments (if you are an exporter and/or producer) or imports (if you are an importer) of merchandise under U.S. Harmonized Tariff Schedule (USHTS) code 2903.39.2035 ("Difluoromethane; pentafluoroethane; and 1,1,1-trifluoroethane") for the time period of July 1, 2011, through June 30, 2019. Provide a narrative explanation of how you aggregated these data from your books and records.

Response:

The monthly and total quantity and value of Cool Master U.S.A., LLC. 's ("Cool Master") imports is provided at Attachment II-A. Cool Master U.S.A., LLC maintains an [ ] for each year. Whenever Cool Master receives the Importer Security Filing ("ISF") from the exporter for an upcoming shipment, it creates a record in the [ ] with the quantity, estimated arrival time, and the exporter's information based on the ISF and the ISF is linked to the [ ]. When the exporter sends the commercial invoice, packing list, and bill of lading, Cool Master matches the invoice with the contract and records the invoice information in the [ ]. The commercial invoice, packing list and Bill of lading are also linked to the [ ]. When the product is received at the warehouse, Cool Master matches the quantity with the commercial invoice and records the inventory information into the [ ]. In order to complete the attachment, Cool Master totalled the monthly quantities and values of the relevant imports based on the commercial invoice date.

2.Identify whether you are a producer, exporter, or U.S. importer of R-32, R-125, and/or R143a produced in China.

Response:

Cool Master only imported R-32, R125 and R143A produced in China during a [|. The company also imports R134A, R421A and R407C into the United States. The company sold all imported product in the United States and did not blend any HFC components.

3.If you are a producer and/or exporter of R-32, R-125, and/or R-143a in China, identify your top five U.S. importers. Fill in the chart provided in attachment II-B with the monthly quantities and values of your shipments under USHTS 2903.39.2035 to each of your top five U.S. importers.

Response:

Not applicable. Cool Master is not a producer or exporter of R-32, R-125 or R-143a.

4. If you are a U.S. importer of R-32, R-125, and/or R-143a produced in China, identify your top five Chinese producers/exporters. Fill in the chart provided in attachment II-C with the monthly quantities and values of your purchases under USHTS 2903.39.2035 from each of your top five Chinese producers/exporters.

Response:

The requested information is provided at Attachment II-C. This response has been aggregated in the same manner as our response to Attachment II-A. The [ ] maintained by Cool Master contains the quantity and value of each import and the identity of the exporter. In order to complete the attachment, Cool Master filtered the information in the [ ] by the exporter name to obtain the monthly quantities and values that Cool Master received from each exporter.

5. State whether you are affiliated with any: a. producers of HFC components R-32, R-125, and/or R-143a in China; b. exporters of HFC components R-32, R-125, and/or R-143a in China; or c. importers of HFC components R-32, R-125, and/or R-143a produced in China into the United States. If yes, please identify those producers, exporters, or importers.

Response:

COOL Master is affiliated with the following importers of HFC components R-32, R-125 and R143A produced in China.

[

]

A separate response is being submitted for each of these companies.

Please respond to questions 6, 7, 8, and 9 (below) only if you are a U.S. importer of HFC components R-32, R-125, and/or R-143a produced in China into the United States. Producers/exporters need not respond to questions 6, 7, 8, and 9.

6. Provide a detailed narrative response as to what your company does with the imported HFC components (including, but not limited to, whether your company, or another company on behalf of your company, blends them to create HFC blends, resells the HFC components, etc.).

Response:

COOL Master sells all HFC components to [ ]. The components are sold in ISO tanks. No HFC components or HFC blends were sold back to COOL Master by [ ]. See response to question 9.

7. If your company, or another company on behalf of your company, blends the HFC components, identify all HFC blends (e.g., R-404A, R-410A, R-507A) your company produces using the imported HFC components. Please also identify if the HFC blends are then sold in the United States.

COOL Master was not involved in blending the HFC components. All HFC components were sold to [ ]. See response to question 9.

8. If your company, or another company on behalf of your company, blends the imported HFC components to create HFC blends, complete the chart in attachment II-D, which details the monthly quantities and values of each HFC blend identified in question 7 using the imported HFC components for the period of July 1, 2011, through June 30, 2019.

Response:

Not applicable. COOL Master does not blend HFC Components. [ ] has submitted a separate response to this questionnaire with the requested information.

9. If your company resells the HFC components, please identify the customers of the resold HFC components, and please explain whether, to the best of your knowledge, these customers are involved in the blending of the HFC components to create HFC blends which are then sold in the United States.

Response:

COOL Master sells HFC components to [ ]. [ ] resells some of the HFC components in the United States and also blends the HFC components to create HFC blends which are then sold in the United States.

IGAS USA Inc.

COMPANY CERTIFICATION

I, **Ben Meng, President,** currently employed by **IGAS USA Inc.** certify that I prepared or otherwise supervised the preparation of the attached submission of **Hydrofluorocarbon Blends from the People's Republic of China: Quantity and Value Questionnaire Response, due on November 12, 2019**, pursuant to the **Anti-Circumvention Inquiry on Hydrofluorocarbon Blends from the People's Republic of China (A-570-028)**. I certify that the public information and any business proprietary information of **IGAS USA Inc.** in the submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C.1001) imposes criminal sanction on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the U.S. Department of Commerce may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that a copy of this signed certification will be filed with this submission to the U.S. Department of Commerce.

Signature: _____

Date: November 12, 2019

OFFICE OF AD/CVD ENFORCEMENT
QUANTITY AND VALUE QUESTIONNAIRE

REQUESTER(S): **IGAS USA Inc.**
8105 Anderson Road
Tampa, Florida 33634
Ben Meng, President
813-298-8101
813-889-7900
ben@bmp-usa.com

REPRESENTATION: **Nithya Nagarajan**
Partner
HUSCH BLACKWELL LLP
750 17th Street, NW,
Suite 900
Washington, D.C. 20006-4675
Direct: 202.378.2409
Fax: 202.378.2319
Nithya.Nagarajan@huschblackwell.com

CASE: Hydrofluorocarbon Blends from the People's Republic of China

DATE OF INITIATION: June 18, 2019

DUE DATE FOR Q&V RESPONSE: November 5, 2019

OFFICIALS IN CHARGE: Andrew Medley, Ben Luberda

Submit all completed charts required by this questionnaire in Excel format.

1. In the chart provided in attachment II-A, please provide monthly and total quantity (in kilograms) and monthly and total value (in U.S. Dollars)4 of your shipments (if you are an exporter and/or producer) or imports (if you are an importer) of merchandise under U.S. Harmonized Tariff Schedule (USHTS) code 2903.39.2035 ("Difluoromethane; pentafluoroethane; and 1,1,1-trifluoroethane") for the time period of July 1, 2011, through June 30, 2019. Provide a narrative explanation of how you aggregated these data from your books and records.

Response:

The monthly and total quantity and value of iGAS USA Inc's ("iGAS USA") imports is provided at Attachment II-A. IGAS USA maintains an [ ] for each year. Whenever IGAS USA receives the Importer Security Filing ("ISF") from the exporter for an upcoming shipment, it creates a record in the [ ] with the quantity, estimated arrival time, and the exporter's information based on the ISF andthe ISF is linked to the [ ]. When the exporter sends the commercial invoice, packing list, and bill of lading, IGAS USA matches the invoice with the contract and records the invoice information in the [ ]. The commercial invoice, packing list and bill of lading are also linked to the [ ]. When the product is received at the warehouse, IGAS USA matches the quantity with the commercial invoice and record the inventory into the [ ] system.

In order to complete the attachment, IGas USA summed the monthly quantities and values based on the commercial invoice date

2.Identify whether you are a producer, exporter, or U.S. importer of R-32, R-125, and/or R143a produced in China.

Response:

IGAS USA imports R-32, R125 and R143A produced in China. IGAS USA also blends these components into HFC blends such as R410A, R404A, R407A, R407C, R507. IGAS USA sells these HFC blends to distributors in the United States.

3.If you are a producer and/or exporter of R-32, R-125, and/or R-143a in China, identify your top five U.S. importers. Fill in the chart provided in attachment II-B with monthly quantities and values of your shipments under USHTS 2903.39.2035 to each of your top five U.S. importers.

Response:

Not applicable. IGAS USA is not a producer or exporter of R-32, R-125 or R-143a.

4. If you are a U.S. importer of R-32, R-125, and/or R-143a produced in China, identify your top five Chinese producers/exporters. Fill in the chart provided in attachment II-C with the monthly quantities and values of your purchases under USHTS 2903.39.2035 from each of your top five Chinese producers/exporters.

Response:

The requested information is provided at Attachment II-C. This response has been aggregated in the same manner as our response to Attachment II-A. The [ ] maintained by IGAS USA contains the quantity and value of each import and the identity of the exporter. In order to complete the attachment, IGAS USA filtered the information in the [ ] by exporter to obtain the monthly quantities and values that IGAS USA received from each exporter.

5. State whether you are affiliated with any: a. producers of HFC components R-32, R-125, and/or R-143a in China; b. exporters of HFC components R-32, R-125, and/or R-143a in China; or c. importers of HFC components R-32, R-125, and/or R-143a produced in China into the United States. If yes, please identify those producers, exporters, or importers.

Response:

IGAS USA is affiliated with the below importers of HFC components R-32, R-125 and R143A produced in China.

[

]

These companies are submitting their own responses to the questionnaire.

Please respond to questions 6, 7, 8, and 9 (below) only if you are a U.S. importer of HFC components R-32, R-125, and/or R-143a produced in China into the United States. Producers/exporters need not respond to questions 6, 7, 8, and 9.

6. Provide a detailed narrative response as to what your company does with the imported HFC components (including, but not limited to, whether your company, or another company on behalf of your company, blends them to create HFC blends, resells the HFC components, etc.).

Response:

IGAS USA resells the HFC components to other companies in the United States. The components are sold in ISO tanks or 125lbs cylinders. IGAS USA also blends these components into HFC blends such as R410A, R404A, R407A, R407C, R507. These HFC blends are packaged in ISO tanks, 30lbs cylinder or 125lbs cylinders and sold to distributors in the United States.

7. If your company, or another company on behalf of your company, blends the HFC components, identify all HFC blends (e.g., R-404A, R-410A, R-507A) your company produces using the imported HFC components. Please also identify if the HFC blends are then sold in the United States.

Response:

See response to question 6. IGAS USA blends R404A, R407A, R407C, R410A and R507 and [ ] in the United States. IGAS USA also uses an unaffiliated third-party company called [ ] to blend R404A, R407A, R407C, R410A and R507 and then sells the HFC blends in the United States.

8. If your company, or another company on behalf of your company, blends the imported HFC components to create HFC blends, complete the chart in attachment II-D, which details the monthly quantities and values of each HFC blend identified in question 7 using the imported HFC components for the period of July 1, 2011, through June 30, 2019.

Response:

The requested information is provided at Attachment II-D. In order to complete this attachment, IGAS USA summed its monthly sales of each HFC blends. IGAS USA records the quantity and value of every sale made in the United States in [ ]. Whenever IGAS USA receives a purchase order from the customer, it creates an [ ] with the product item code, quantity, unit price, ship to address, bill to address, and payment terms. IGAS USA's production is based on sales and the sales information is, therefore, reflective of the company's production. In order to complete the attachment, IGAS USA summed the monthly sales quantities and values for each HFC blend

9. If your company resells the HFC components, please identify the customers of the resold HFC components, and please explain whether, to the best of your knowledge, these customers are involved in the blending of the HFC components to create HFC blends which are then sold in the United States.

Response:

IGAS USA sells HFC components to the unaffiliated companies listed below.

[

]

IGAS USA's understanding is that these companies blend the HFC components to create HFC blends. IGAS USA does not know what these companies do with the HFC blends, but assumes at least some of them are sold in the United States

Exhibit 8-F

Attachment 2

GDLSK
GRUNFELD DESIDERIO LEBOWITZ
SILVERMAN & KLESTADT LLP

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Business Proprietary Information
On Narrative Page D-19
and in Exhibits D-1 to D-9 has been ranged or deleted

PUBLIC VERSION

VIA ELECTRONIC FILING
Hon. Penny Pritzker
Secretary of Commerce
Enforcement and Compliance
Room 1870
U.S. Department of Commerce
14th Street & Constitution Avenue, N.W.
Washington, D.C. 20230

Attn: Joshua Startup

Re: *Juhua Group's Section D Response*: **Antidumping Duty Investigation of 1,1,1,2 Tetrafluoroethane from the People's Republic of China**

Dear Madam Secretary:

This Section D questionnaire response is filed by GDLSK, on behalf of the Juhua Group to support the Sections A, C, D (packing only) Questionnaire responses filed on behalf of Weitron International Refrigeration Equipment (Kunshan) Co., Ltd., an exporter of subject merchandise, in the above referenced investigation. We note that this response is being submitted as factual information under 19 CFR 351.102(b)(21)(i).

Should you have any questions concerning this matter, please do not hesitate to contact us.

Respectfully submitted,

GRUNFELD, DESIDERIO, LEBOWITZ
SILVERMAN & KLESTADT LLP

Bruce M. Mitchell (DC)

Bruce M. Mitchell
Max F. Schutzman
Ned. H. Marshak
Dharmendra N. Choudhary

SECTION D
Factors of Production Questionnaire

I. General Explanation

This section of the antidumping questionnaire instructs you on how to report the **factors of production** (factors) of the merchandise under consideration. Please refer to the cover letter to determine your reporting requirements.

A. Factors of Production

Factors of production are used to construct the value of the product sold by your company in the United States. The Department will use the input amounts you report, along with the appropriate price from the chosen **surrogate country**, to construct the **normal value** of the merchandise under consideration sold by your company to the U.S. market. Surrogate values for overhead, selling, general and administrative (SG&A) expenses and profit will also be added. Unless otherwise instructed by the Department, you should report factors information for all models or product types in the U.S. market sales listing submitted by you (or the exporter) in response to Section C of the questionnaire, including that portion of the production that was not destined for the United States. The reported amounts should reflect the factors of production used to produce one unit of the merchandise under consideration.

If you believe that your company uses any raw materials that should be classified as factory overhead expenses rather than valued as factors of production and directly included in normal value, please: (1) notify the Department official in charge, and (2) identify these materials in your first Section D questionnaire response. Your first Section D questionnaire response should contain a comprehensive list of all such materials you consider to be part of factory overhead. Please provide this information to the Department immediately, as this will afford your company and the Department sufficient time to evaluate your company's specific use of the raw material and to determine the most appropriate manner in which the raw material should be valued.

If you have any questions regarding how to compute the factors of the merchandise under consideration, please contact the official in charge before preparing your response to this section of the questionnaire.

Answer: This questionnaire response to Section D of the Department's questionnaire is provided by the Juhua Group Corporation to support the Questionnaire Response of Weitron International Refrigeration Equipment (Kunshan) Co., Ltd ("Weitron China"), in connection with Weitron-China's exportation of R134a to the United Sates, which was

resold by Wietron-USA during the Period of Investigation ("POI").

Weitron China did not produce R134a. Rather, it obtained bulk R134a in isotanks from a member of the Juhua Group, Zhejiang Quhua Fluor-chemistry Co., Ltd ("QuHua"), which Weitron-China then packed and shipped to the United States. Thus, this response is limited to the factors of production of bulk R134a supplied by the Juhua Group to Weitron. The information in this response consists of Juhua Group proprietary business information, which the Juhua Group is submitting directly to the Department, through counsel, for the Department's use in the calculation of Weitron's dumping margins.

The actual producers of R134a are two members of the Juhua Group: Zhejiang Juhua Co., Ltd., at its Organic Fluorine Plant ("JuHuaOP") and Zhejiang Qzhou Juxin Fluorochemical Industrial Co., Ltd ("JuXin"), located in QuZhou City, ZheJiang Province, China. These companies are collectively referred to as "JuHua" or "JuHua Group." JuHuaOP and JuXin sell R134a to another member of the Juhua Group, QuHua, which as noted, supplies the bulk R134a to Weitron.

The Juhua Group and Weitron are not affiliated parties.

JuHuaOP and JuXin have reported the weighted average FOPs for the bulk R134a sold to Weitron which was packed by Weitron in China for sale by Weitron-USA to its unaffiliated customers in the U.S. market during the POI. A printout of the FOP file detailing the FOPs for each input used to produce bulk R134a sold by the Juhua Group to Weitron is provided in Exhibit D-1. The factors of production have been provided on a per Ton unit basis.

We note that two members of the Juhua Group, QuHua and Zhejiang Quzhou Lianzhou Refrigerants Co., Ltd. (Lianzhou) sold subject R134a directly to the United States during the POI. The R134a sold by Quhua and Lianzhou also was produced by JuHuaOP and JuXin. QuHua and Lianzhou have submitted Separate Rate Applications to the Department, describing the corporate structure of the Juhua Group. In addition, QuHua is a mandatory respondent in the Department's countervailing duty investigation.

Additional information regarding members of the Juhua Group involved in the production and/or sale of subject merchandise and/or inputs which are used, directly or indirectly, in the production and/or sale of subject merchandise is found in Exhibit D--9. This exhibit consists of information previously submitted to the Department in QuHua's CVD questionnaire response, at pages 4 – 7.

Exhibit 8-G

2018 Annual Report

Company code: 600160 Company abbreviation: Juhua

Zhejiang Juhua Co., Ltd.
2018 Annual Report

Board of Directors of Zhejiang Juhua Co., Ltd.

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important hint

1. The company's board of directors, board of supervisors, directors, supervisors, and senior management ensure that the content of the annual report is true, accurate, and complete,

There are no false records, misleading statements or major omissions, and bear individual and joint legal responsibilities.

2. All directors of the company attended the board meeting.

3. Tianjian Certified Public Accountants (Special General Partnership) issued a standard unqualified audit report for the company.

4. Hu Zhongming, person in charge of the company, Wang Xiaoming, person in charge of accounting work, and Wang Xiaoming, person in charge of accounting institutions (accounting officer)

Statement: Guarantee the truthfulness, accuracy and completeness of the financial report in the annual report.

5. The profit distribution plan for the reporting period or the plan for the conversion of provident funds to share capital after consideration by the board of directors

Based on the company’s total share capital of 2,745,166,103.00 shares at the end of 2018 as a base, cash is distributed to all shareholders for every 10 shares of 1.5 Yuan (including tax), a total of 411,774,915.45 yuan of dividends will be distributed; this time, the stock dividend distribution method will not be adopted, nor will the capital public

Provident fund turned into share capital. This plan still needs to be implemented after being reviewed and approved by the company's 2018 annual shareholders' meeting.

Six, forward-looking statements risk statement

√Applicable □Not applicable

Forward-looking statements such as future plans and development strategies involved in this report do not constitute the company's substantial commitment to investors. Investors pay attention to investment risks.

7. Is there any non-operating capital occupation by the controlling shareholder and its related parties?

no

8. Is there any external guarantee that violates the prescribed decision-making procedures?

no

Nine, major risk warning

In this report, the company has described in detail the risk factors that may arise for the realization of the company's future development strategy and business objectives. And the measures that the company has taken or will take. Please refer to the discussion and analysis on the company's future development Discuss and analyze the risks that the company may face.

Ten, other

□Applicable √Not applicable

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Section 1 Interpretation

1. Interpretation

In this report, unless the context otherwise requires, the following words have the following meanings:

1. Interpretation of common words

Company or company	Refers to Zhejiang Juhua Co., Ltd.
Juhua shares	
Controlling shareholder, Juhua Group	Refers to Zhejiang Juhua Group Co., Ltd.
Chemical Group	
Quhua Fluoride Company	refers to Zhejiang Quhua Fluorine Chemical Co., Ltd., a wholly-owned subsidiary of Juhua
Juxin Fluoride Company	refers to Zhejiang Quzhou Juxin Fluorine Chemical Co., Ltd., a wholly-owned subsidiary of Juhua
Lanxi Fluoride Company	refers to Zhejiang Lanxi Juhua Fluorine Chemical Co., Ltd., a subsidiary of Juhua Co., Ltd.
Lianzhou Refrigeration Company	refers to Zhejiang Quzhou Lianzhou Refrigerant Co., Ltd., a wholly-owned subsidiary of Juhua
Fluorine Chemical Company	refers to Zhejiang Quzhou Fluorine Chemical Co., Ltd., a wholly-owned subsidiary of Juhua
Kaisheng Fluoride Company	refers to Zhejiang Kaisheng Fluorine Chemical Co., Ltd.
Kaiheng Electronic Company	refers to Zhejiang Kaiheng Electronic Material Co., Ltd.
Jusheng Fluoride	refers to Zhejiang Jusheng Fluorine Chemical Co., Ltd., a subsidiary of Juhua Holdings
Quzhou Xinju Company	refers to Zhejiang Quzhou Xinju Fluorine Material Co., Ltd., a subsidiary of Juhua Holdings
Borui Electronics	refers to Zhejiang Borui Electronic Technology Co., Ltd.
Jusu Chemical Company	refers to Zhejiang Quzhou Jusu Chemical Co., Ltd., a wholly-owned subsidiary of Juhua
Juhua Nylon Company	refers to Quzhou Juhua Nylon Co., Ltd., a wholly-owned subsidiary of Juhua Co., Ltd.
Ningbo Juhua Company	refers to Ningbo Juhua Chemical Technology Co., Ltd., a wholly-owned subsidiary of Juhua Co., Ltd.
Ningbo Juxie Company	refers to Ningbo Juxie Energy Co., Ltd., a wholly-owned subsidiary of Juhua
Ninghua New Materials Corporation	Refers to Ningbo Juhua New Materials Co., Ltd. and Juhua Holding Sun Company
Division	
Jubang High-tech Company	refers to Zhejiang Jubang High-tech Co., Ltd., a subsidiary of Juhua Holdings
Lishui Fuhua	refers to Zhejiang Lishui Fuhua Chemical Co., Ltd., a wholly-owned subsidiary of Juhua
Juhua Hong Kong	refers to Juhua Trading (Hong Kong) Co., Ltd., a wholly-owned subsidiary of Juhua
Zhanan Petrochemical Company	refers to Zhejiang Juhua Zhanan Petrochemical Engineering Co., Ltd., a subsidiary of Juhua
Lianzhou Refrigeration Technology	Refers to Zhejiang Juhua Lianzhou Refrigeration Technology Co., Ltd., Juhua Holding Sun Company
the company	
Jinju Chemical Company	refers to Zhejiang Jinju Chemical Co., Ltd., a subsidiary of Juhua Holdings
Tianjin Bairui Company	refers to Tianjin Bairui Polymer Material Co., Ltd. and Juhua Holding Sun Company
Technology Center Company	refers to Zhejiang Juhua Technology Center Co., Ltd., a subsidiary of Juhua Holdings
New Materials Research Institute	Refers to Zhejiang Juhua New Materials Research Institute Co., Ltd., a subsidiary of Juhua Holdings
the company	
Montreal agreement	Refers to the Montreal Convention. It is the United Nations in order to prevent the chlorofluorocarbons in industrial products from stinking the earth.
book	The oxygen layer continues to cause deterioration and damage, inheriting the general principles of the 1985 Vienna Convention for the Protection of the Ozone Layer.

On September 16, 1987, 26 member states were invited to sign the environment in Montreal, Canada
Protection Convention

The Montreal Protocol refers to the resolution adopted at the 28th Meeting of the Parties to the Montreal Protocol on October 15, 2016.

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The Final Book Kigali Amendment	Amendment to reduce HFCs. The effective date is January 1, 2019.
kt/a	Refers to thousand tons/year
CDM	Refers to the clean development mechanism and is one of the flexible compliance mechanisms introduced in the Kyoto Protocol. The core content is Allow developed and developing countries to transfer and obtain project-level emission reduction offsets Developing countries implement greenhouse gas emission reduction projects
ODS	Refers to ozone depleting substances (OzoneDepleting Substances), destroying the atmospheric ozone layer, harm Chemical substances in human living environment
ODS alternatives	Refers to products that replace ozone-depleting substances
CFCs	Refers to chlorofluorocarbons, a group of halogenated alkanes composed of chlorine, fluorine, and carbon. At first it was used as a refrigerator to cool Agent, but since it will decompose the ozone layer, from January 1, 1996, chlorofluorocarbons The compound is officially banned
Refrigerants	Refers to also known as refrigerant, refrigerant, and refrigerant, which is the medium substance used in various heat engines to complete energy conversion
2. Major Outsourcing raw material	Refers to the following purchased materials
VCM	Refers to vinyl chloride, which undergoes addition polymerization under the action of an initiator to produce polyvinyl chloride (PVC) plastic. Also By copolymerizing with certain unsaturated compounds to become a modified variety to improve certain properties
fluorite	The main component is calcium fluoride (CaF2), which is an important mineral for extracting fluorine
industrial salt	Refers to sodium chloride, white crystal form, its source is mainly seawater, easily soluble in water, glycerin, slightly soluble in ethanol, Liquid ammonia; insoluble in concentrated hydrochloric acid. Industrially used to manufacture soda ash, caustic soda and other chemical products, ore smelting Refining
Calcium carbide	Refers to calcium carbide, an important basic chemical raw material, mainly used to produce acetylene gas. Also used in organic synthesis, oxygen Acetylene welding
Spermidine	Refers to tetrachloroethane, a colorless liquid with a chloroform-like smell. Non-flammable, toxic and irritating, mainly used for health The raw material for producing trichloroethylene and tetrachloroethylene is also used as a non-flammable solvent for resin, rubber, fat, etc. Used in the production of metal detergents, insecticides, herbicides, etc.
coal	Refers to a combustible black or brownish black sedimentary rock, mainly composed of carbon, Together with a different number of others Elemental composition is mainly hydrogen, sulfur , oxygen and nitrogen. Used as an energy resource, mainly burned to produce electricity Power and/or heat, and can also be used for industrial purposes, such as refining metals, or producing fertilizers and many chemical

Industrial products

benzene	Refers to an organic compound, a colorless liquid with a special smell, which can be extracted from coal tar and petroleum, is A variety of raw materials and solvents for the chemical industry. Used as synthetic dye, synthetic rubber, synthetic resin, synthetic fiber dimension
Sulfur concentrate	Refers to pyrite, semiconductor mineral, the main raw material for producing sulfur and sulfuric acid. When Au, Co, Ni is included Take associated elements

3. The main products refer to the following classified products

1. Fluorine chemical raw materials refer to the following products

AHF	Refers to anhydrous hydrogen fluoride, widely used in atomic energy, chemical, petroleum and other industries, is it a strong oxidant Take elemental fluorine, various fluorine refrigerants, inorganic fluorides, basic raw materials of various organic fluorides It is made into hydrofluoric acid for various purposes, used in the manufacture of graphite and catalysts for the manufacture of organic compounds, etc.
Methane chloride	Refers to monochloromethane (CH3CL), dichloromethane (CH2CL2), chloroform (also known as chloroform, CHCL3), Carbon tetrachloride (CCL4), the general term for four products, is an important chemical raw material and organic solvent. In the father Division, dichloromethane is the raw material of R32, chloroform is the raw material of R22, and carbon tetrachloride is the raw material of PCE

material

PCE	Refers to tetrachloroethylene, mainly used as cleaning (dry) lotion, solvent and chemical synthesis agent; as raw material intermediate Used to produce HFC-125
TCE	Refers to trichloroethylene, is an important chemical raw material, used in industry for metal cleaning, electronic components cleaning; As a raw material intermediate, it can be used to produce tetrachloroethylene, HFC-125, HFC-134a, etc.; also used for extraction Agents, solvents and low temperature thermal oil media
HCFC-142b	Refers to difluorochloroethane, which is mainly used in refrigeration and air-conditioning systems, heat pumps, and various mixed refrigerants in high-temperature environments Important components, and the middle of polymer (plastic) foaming, thermostatic control switch and aviation propellant It is also used as a raw material for PVDF and fluororubber chemicals
HCFC-141b	Refers to monofluorodichloroethane, which can replace CFC-11 as a foaming agent for rigid polyurethane foam. CFC-113 is used as a cleaning agent, and it can also be used as a raw material for fluorinated chemicals
Methanol	Refers to saturated monohydric alcohol, basic organic chemical raw materials and high-quality fuel. Mainly used in fine chemicals, plastics And other fields, it is used to manufacture various organic products such as formaldehyde, acetic acid, methyl chloride, methylamine, thiomethyl dimethyl, It is also one of the important raw materials for pesticides and medicines
2. Refrigerant	Refers to the following products
CFC-12	Refers to difluorodichloromethane, mainly used as piston refrigerator, refrigerator, refrigerator, air conditioner, refrigerant
HCFCs	Refers to hydrochlorofluorocarbons and is a substitute for a series of refrigerants, mainly including: HCFC-22, HCFC-123, HCFC-124, HCFC-141b and HCFC-142b, etc., of which HCFC-22 production accounts for all HCFCs Has a relatively large proportion and is mainly used as a raw material for refrigerants, foaming agents and other chemical products

HFCs	Refers to hydrofluorocarbons, which help to avoid ozone-depleting substances, and is often used to replace ozone-depleting substances, such as Chlorofluorocarbons (CFCs) commonly used in refrigerators, air conditioners and insulating foam production
F22	Refers to also known as HCFC-22, R22, used for reciprocating compressors, used in household air conditioners, central air conditioners, mobile Air conditioners, heat pump water heaters, dehumidifiers, freeze dryers, cold storages, food freezing equipment, marine systems Refrigeration equipment such as cold equipment, industrial refrigeration, commercial refrigeration, freezing and condensing units, supermarket display cabinets, etc. Etc.; HCFC-22 is also widely used as a raw material for Teflon resin and the middle of gas fire extinguishing agent 1211 Body, and physical blowing agent for polymers (plastics). Can also be used as aerosol for pesticides and paint Propellant is the basic raw material for producing various fluorine-containing polymer compounds
HFC-32	Refers to also as R32, difluoromethane, is a kind of refrigerant, no damage to the atmospheric ozone layer, and can be used with HFC-125 Mixed into HFC-410a
HFC-134a	Refers to also as R134a, 1,1,1,2-tetrafluoroethane, is a fluorine refrigerant, mainly used to replace the refrigeration industry CFCs used in, including refrigerators, freezers, water dispensers, car air conditioners, central air conditioners, Wet machine, cold storage, commercial refrigeration, ice water machine, ice cream machine, freezing condensing unit and other refrigeration equipment, It can also be applied to aerosol propellants, medical aerosols, insecticide propellants, polymers (plastics) Foaming agent, and magnesium alloy protective gas. Widely used as car air conditioner, refrigerator, central air conditioner, Refrigerant for commercial refrigeration and other industries, and can be used in medicine, pesticides, cosmetics, cleaning industry
HFC-125	Refers to pentafluoroethane, a kind of refrigerant, which does not damage the ozone layer of the atmosphere, and is mainly used in air conditioning, industrial Used in commercial refrigeration, chiller and other industries to prepare R404A, R407C, R410A, R507 and other refrigeration Agent, used to replace R22, R12, etc. Can also be used as a fire extinguishing agent to replace part of the halon series Gunpowder. HFC-410a mixed with HFC-32 is a new refrigerant
HFC-245fa	Refers to pentafluoropropane, which is a kind of foaming agent, used for polyurethane (PU) development of refrigerators, cold storages and building boards Foam; can also be used as a refrigerant to replace R-123 and R-22 refrigerants in central air conditioners (chillers)
HFC-410a	Refers to the mixture of HFC-125 and HFC-32, which is currently the mainstream recognized and recommended by most countries in the world Low temperature environmentally friendly refrigerant, widely used in the initial installation and re-adding process of new refrigeration equipment

HFO-1234fy	Refers to the fourth-generation refrigerant, the Chinese name 2,3,3,3-tetrafluoropropene, is a substitute for the third-generation refrigerant, used in Refrigerator refrigerant, fire extinguishing agent, heat transfer medium, propellant, foaming agent, foaming agent, gas medium, extinguishing agent Bacterial carrier, polymer monomer, particle removal fluid, carrier gas fluid, abrasive polishing agent, replacement drying Agent, electric circulating working fluid and other fields

3. Fluoropolymer refers to the following products

TFE	Refers to tetrafluoroethylene, used in the manufacture of polytetrafluoroethylene and other fluoroplastics, fluororubber and polyfluoroethylene propylene body
PTFE	Refers to polytetrafluoroethylene, a polymer compound formed by polymerization of tetrafluoroethylene, which has excellent comprehensive performance,

	High temperature resistance, corrosion resistance, non-stick, self-lubricating, excellent dielectric properties, very low coefficient of friction. Compressible Shrinkage or extrusion processing; can also be made into an aqueous dispersion for coating, impregnation or fiber. In the original Zineng, national defense, aerospace, electronics, electrical, chemical, machinery, instruments, meters, construction, textile, Widely used in metal surface treatment, pharmaceutical, medical, textile, food, metallurgy and other fields
ETFE	Refers to the ethylene-tetrafluoroethylene copolymer, which is the strongest fluoroplastic. It maintains the good heat resistance of PTFE, At the same time of chemical resistance and electrical insulation performance, radiation resistance and mechanical properties have been greatly improved. The tensile strength can reach 50MPa, which is close to twice that of PTFE. Mainly used in anti-corrosion lining, house Roofing materials, covering materials for agricultural greenhouses, canopy materials for various shaped buildings, such as stadium stands, Building cone roof, casino, various canopies, parking lots, exhibition halls and museums, etc. The material is gold It is a unique strong adhesion characteristic, and its average linear expansion coefficient is close to that of carbon steel. It is a metal Ideal composite material
HFP	Refers to hexafluoropropylene, which can be used as a raw material for the preparation of fluorosulfonic acid ion exchange membrane, fluorocarbon oil and polyperfluoroethylene propylene. Can also prepare a variety of fluorine-containing fine chemical products, pharmaceutical intermediates, fire extinguishing agents
FEP	Refers to polyperfluoroethylene propylene, has similar characteristics to PTFE, and has a good processing technology for thermoplastics Art, mainly used to make the inner layer of pipes and chemical equipment, the surface layer of the drum and various wires and cables. in Widely used in the production of wire and cable in electronic equipment transmission lines used in high temperature and high frequency, computer Internal connection wires, aerospace wire, and other special purpose installation wires, oil mine logging cables, Submersible motor winding wire, micro motor lead wire, etc.
VDF	Refers to vinylidene fluoride, mainly used as a monomer raw material for fluororesin and fluororubber
PVDF	Refers to the copolymerization of polyvinylidene fluoride, vinylidene fluoride polymer, or vinylidene fluoride with a small amount of other fluorine-containing vinyl monomers Polymer, which has the characteristics of fluorine resin and general resin, in addition to having good chemical resistance and high resistance In addition to temperature resistance, oxidation resistance, weather resistance, and radiation resistance, it also has piezoelectricity, dielectricity, heat Electricity and other special properties are the second largest products among fluoroplastics, mainly used in petroleum Chemical, electronic and electrical, and fluorocarbon coatings. Is the entire fluid processing system of petrochemical equipment or One of the best materials for lined pumps, valves, pipes, pipe fittings, storage tanks and heat exchangers. Be wide It is widely used in the storage and transportation of high-purity chemicals in the semiconductor industry. Porous membranes, gels, separators, etc., are used in lithium secondary batteries, and this use has become an increasing demand for PVDF. One of the fastest growing markets. PVDF is one of the main raw materials for fluorocarbon coatings, which are widely used Used in power stations, airports, highways, high-rise buildings, etc. In addition, PVDF resin can also be used with other trees Fat blending modification, such as PVDF and ABS resin blending to obtain composite materials, has been widely used in construction, Car decoration, home appliance shell, etc.
FKM	Refers to fluororubber, which refers to a synthetic polymer elastomer containing fluorine atoms on the carbon atoms of the main chain or side chain. Aerospace, automotive, petroleum, and household appliances have been widely used, and are among the most advanced industries in national defense. Irreplaceable key materials
4. Fine fluorine	Refers to the following products

Scholastic

Miscellaneous craft

Wet electronic chemicals refer to the chemical products with the highest requirements on quality and purity among the fine chemical and electronic information industries.

Subdivided fields, including electronic grade hydrochloric acid, electronic grade nitric acid, electronic grade sulfuric acid, electronic grade hydrofluoric acid, etc.,

Mainly used in flat panel display, semiconductor and photovoltaic solar fields

Section 2 Company Profile and Main Financial Indicators

1. Company Information

The company's Chinese name	Zhejiang Juhua Co., Ltd.
Chinese abbreviation	Juhua shares
The company's foreign name	ZHEJIANG JUHUA CO.,LTD
Abbreviation of the company's foreign name	ZJJH
The company's legal representative	Hu Zhongming

2. Contact person and contact information

	Secretary of the Board	Securities Affairs Representative
Name	Liu Yunhua	Julie
contact address	Zhejiang Juhua, Kecheng District, Quzhou City, Zhejiang Province Co., Ltd.	Zhejiang Juhua, Kecheng District, Quzhou City, Zhejiang Province Co,. Ltd.
phone	0570-3091758	0570-3091704
fax	0570-3091777	0570-3091777
email	gfzqb@juhua.com.cn	zhuli@juhua.com.cn

3. Introduction

Company registered address	Kecheng District, Quzhou City, Zhejiang Province
Postal code of company registered address	324004
Company office address	Kecheng District, Quzhou City, Zhejiang Province
Postal code of company office address	324004
company website	http://www.jhgf.com.cn

1. The company's main business, business model and industry description during the reporting period

1. Main business: The company is a leading domestic advanced manufacturing base of fluorine chemicals and chlor-alkali chemicals.

The business is the research and development, production and sales of basic chemical raw materials, food packaging materials, fluorinated chemical raw materials and subsequent products, with chlor-alkaliization Chemical industry, sulfuric acid chemical industry, coal chemical industry, basic fluorine chemical industry and other necessary chemical industry self-supporting system, and on this basis, formed a Complete fluorinated chemical products including basic supporting raw materials, fluorine refrigerants, organic fluorine monomers, fluoropolymers, fine chemicals, etc. Industry chain, and involved in the petrochemical industry.

The company has many products, is widely used, and has a high degree of relevance to other industries (the company's main product uses, please read the first section of this report "Interpretation", Section 4 "Discussion and Analysis of Business Situation"). The company's fluoropolymer materials, food packaging materials and other new chemical materials The material performance is superior, and its application range continues to expand into wider and deeper fields as technology advances and consumption upgrades.

2. Main business model: mainly R&D-procurement-production-sales model. The company's production management plan approved by the board of directors Planning, on the basis of a comprehensive budget, the procurement department carries out intensive procurement of raw and auxiliary materials, and each production entity unit prepares production operations Concretely implement the plan and organize the implementation. The sales department is responsible for product sales.

The company belongs to the chemical raw materials and chemical products manufacturing industry. Industrial chain, leading domestic product scale technology, of which fluorine refrigerants are in the global leading position), is a means of production, directly The industry supply cycle, downstream consumption cycle and macro cyclical fluctuations, and the company's product price elasticity and performance elasticity are greater, Has obvious periodic characteristics. As the company continues to increase the development of advanced chemical materials, the company's industrial chain is complete, and multiple chemical subsidiaries Industry, and the continuous deepening of supply-side structural reforms, etc., the cyclical volatility of the company's industry has weakened. Company product cost, Expenses and revenue (product price, sales volume) are the main drivers of company performance.

3. Industry situation: During the reporting period, the world economy has recovered and grown, my country's economy has progressed steadily, and the supply side of the chemical industry has undergone structural changes The reform has advanced in depth, the safety and environmental pollution prevention policies have become stricter, the competition order of the industry in which the company is located continues to improve, and the prices of majo As the pivot rises, the industry's concentration will further increase (for details, please read Section 4 "Discussion and Analysis of Business Situation" of this report).

2. Explanation of major changes in the company's main assets during the reporting period

□Applicable √Not applicable

3. Analysis of core competitiveness during the reporting period

√Applicable □Not applicable

Since the company was established 21 years ago, its business has developed steadily. The company has gradually transformed from a basic chemical industry enterprise to China's leading fluorine chemical industry The company has become a leading domestic advanced manufacturing base of fluorine chemicals, chlor-alkali chemicals, and coal chemicals. The characteristics of clustering, baseization, recycling and industrialization have accumulated spatial layout, industrial chain, scale technology, brand, market, investment Sources, management and other development of the competitive advantages of fluorinated chemicals and new chemical materials, and formed a pattern of industrial collaboration and high-end extension of the industrial chain With trends.

The company's main product production technology, safety and environmental protection technology and its supporting facilities, production and operation management level are all in line Industry leadership. Under the environment of deepening supply-side structural reforms and increased safety and environmental governance, the company has a competitive advantage Continuously strengthen.

(1) Advantages of industrial chain and spatial layout

The company specializes in its main business, and has now developed into a leading enterprise in China's fluorine chemical industry. The complete fluorinated chemical industry chain including refrigerants, organic fluoromonomers, fluoropolymers, fine chemicals, etc.; in addition, the company is a The leading VDC-PVDC material supplier in China, the main manufacturer of cyclohexanone-caprolactam, and actively layout the electronic chemical materials industry, Interwoven with the fluorinated chemical industry chain into a network structure industrial layout, forming a synergistic and intensive development advantage.

The company's production base is mainly concentrated in the company's Quzhou headquarters and the surrounding Ningbo and Lanxi areas. The core industrial space layout is base, Clustering and intensive and coordinated development have obvious advantages. Relying on a complete industrial chain, the company adheres to the green and high-end development of the industry, "Base "Eco-parking, product serialization, and economic recycling" have achieved remarkable results. The establishment of an advantageous industrial cluster with fluorine chemical as the core The transformation of single product competition to industrial competition and industrial cluster competition is an extension of the company's low-cost operation, low-cost development, and high-end industry A solid support has accumulated.

Starting from strategic planning, the company attaches great importance to the industrial chain and spatial layout, with "beautiful giant", "Sansheng (production, living, "Ecological" giant" construction as a breakthrough, adhere to the principle of circular economy 4R (reduction, reuse, recycling, remanufacturing), complete The high-end extension of the industrial chain and the creation of a beautiful ecological chemical park provide favorable support for the company's sustainable development under the new situation.

(2) Advantages of scale and technology

The company's leading product scale is domestically leading, the main products are produced using international advanced standards, and the core business of fluorine chemical is in the domestic market. Leading position (including fluorine refrigerants in the world's leading position), special chlor-alkali new materials in the domestic leading position. As of the end of 2018, the company The company has 240 authorized patents (including 6 foreign authorized patents).

During the reporting period, the company acquired 100% equity of Zhejiang Juhua Technology Center Co., Ltd. and Zhejiang Juhua New Materials Research Institute Co., Ltd.,

2 Products and Production

(1). Main business model

√Applicable □Not applicable

Fluorine refrigerants and their substitutes, fluoropolymers, food packaging materials, fluorinated chemical raw materials, fluorinated fine chemicals, petrochemicals

Research, development, production and sales of materials, coal chemicals, basic chemical products and other products.

The main situation of adjusting the business model during the reporting period

□Applicable √Not applicable

(2). Main products

√Applicable □Not applicable

product	Industry subdivision	Main upstream raw materials material	Main downstream application area	Main factors affecting price
AHF	Fluorine chemical raw materials	Fluorite, sulfuric acid	Fluorine	Manufacturing cost, supply and demand
Methane chloride fluoride raw materials		Chlorine, methanol	Fluorine chemical, refrigerant	Manufacturing cost, supply and demand
TCE	Fluorine chemical raw materials	Acetylene, chlorine	Fluorine chemical, refrigerant, cleaning agent	manufacturing cost, supply and demand status
PCE	Fluorine chemical raw materials	Chlorinated hydrocarbons, dichloroethane, Alkanes, carbon tetrachloride	Fluorine chemical, refrigerant, cleaning agent	manufacturing cost, supply and demand status
HCFC-141b	Fluorine	Vinylidene chloride, non-Hydrofluoric acid	Foaming agent, cleaning agent	Manufacturing cost, supply and demand
R11, R12	Refrigerant	AHF, CCL4	Now mainly used in pharmaceutical industry	Industrial policy
R22	Refrigerant	AHF, CHCL3	Air conditioning, fluoride	Manufacturing cost, supply and demand
R32	Refrigerant	AHF, CH2CL2	Air conditioner, refrigerator, mixed refrigerant Agent	Manufacturing cost, supply and demand
HFC-134a	Refrigerant	AHF, TCE	Automotive air conditioning, commercial and industrial refrigerating system	Manufacturing cost, supply and demand
R410A	Refrigerant	R32, R125	air conditioning	Manufacturing cost, supply and demand
R404A	Refrigerant	R134a, R125	Air conditioning, low and medium temperature refrigeration	Manufacturing cost, supply and demand

R507	Refrigerant	R134a, R125	Air conditioning, low and medium temperature refrigeration	Manufacturing cost, supply and demand
R125	Refrigerant	AHF, TFE monomer	mixed working medium, air conditioning	Manufacturing cost, supply and demand
R245	Refrigerant	CCL4, VCM	Air conditioner, foaming agent	Manufacturing cost, supply and demand

TFE	Fluoropolymer material	R22, water vapor	Fluorine chemical raw materials	Manufacturing cost, supply and demand
		material		
PTFE	Fluoropolymer material	TFE monomer	Chemical anti-corrosion, sealing, aerospace,	Manufacturing cost, supply and demand
		material	Building materials and other industries	
HFP	Fluoropolymer material	TFE monomer	New refrigerant, fire extinguishing agent,	Manufacturing cost, supply and demand
		material	Fluoropolymers, pharmaceutical intermediates	
FEP	Fluoropolymer material	HFP monomer	High temperature wire and cable, valve lining,	Manufacturing cost, supply and demand
		material	Other industries	
PVDF	Fluoropolymer material	R142b, VDF	Solar backsheet film, water treatment film,	Manufacturing cost, supply and demand
		material	Wait	
VDC	Food packaging materials	Chlorine, VCM	Fluorine chemical raw materials, food packaging materials	Manufacturing cost, supply and demand
			Raw materials	
PVDC resin	Food packaging materials	VDC, VCM	Packaging of food, medicine and military products,	Manufacturing cost, supply and demand
			Material processing	
PVDC membrane	Food packaging materials	PVDC resin	Food and medicine packaging	Manufacturing cost, supply and demand
Caustic soda, liquid chlorine	basic chemical industry	industrial salt (NaCL)	basic chemical products, fluorochemicals	Manufacturing cost, supply and demand
Cyclohexanone	Petrochemical materials	Benzene, H2	Organic solvents, synthetic caprolactam	Manufacturing cost, supply and demand
			And organic materials such as adipic acid	
Caprolactam	Petrochemical materials	Cyclohexanone, ammonia,	Nylon, engineering plastic, plastic thin	Manufacturing cost, supply and demand
		Hydrogen peroxide	membrane	
Methanol	Coal chemical products	coal	Fine chemicals, plastics and other fields	Manufacturing cost, supply and demand
Liquid ammonia	Coal chemical products	coal	Manufacturing costs, supply and demand status of raw materials for chemical fertilizers, medicines and pesticides	
Industrial sulfuric acid	Basic chemical industry	pyrite, water,	Basic chemical products, fluorinated chemicals,	Manufacturing cost, supply and demand
		air	industry	
Chlorosulfonic acid	Hydrogen chloride and trioxygen in basic chemical industry		Basic chemical products	Manufacturing cost, supply and demand
		Sulfur		
Calcium chloride	Limestone, hydrochloric acid		snow-melting agent, desiccant for basic chemical industry,	Manufacturing cost, supply and demand

(3). R&D and innovation

√Applicable □Not applicable

During the reporting period, the company continued to adhere to the combination of self-development and cooperative development, the introduction of technology and the absorption and re-innovation of imported technology Combining the principles, actively promote technological progress and new product development, and promote the transformation of the main production equipment APC. R&D investment of 496 million Yuan, implement new product development (small and medium-sized test, etc.), industrialization verification and industrialization, industrial upgrading (process transformation, informatization, intelligence, Safety and environmental protection improvement, etc.) 110 R&D projects, and through the acquisition of Zhejiang Juhua Technology Center Co., Ltd. and Zhejiang Juhua New Materials Research Research Institute Co., Ltd. 100% equity, establish and improve independent research and development system, quickly enhance the independent innovation capability of core technology, increase technology storage Equipment, increase product variety, improve product quality, improve production technology, and enhance the company's core competitiveness and sustainable development capabilities.

1,940 0.12

Basic situation of major environmental violations during the reporting period

□Applicable √Not applicable

(3). Other information

□Applicable √Not applicable

(Fives) Investment status analysis

1. Overall analysis of foreign equity investment

√Applicable □Not applicable

In the reporting period, the total amount of foreign equity investment was RMB 141,193,700, an increase of RMB 84,392,200 compared with the previous year, an increase of 6.32%, mainly

The reason is that in 2018, RMB 370 million was invested to increase the capital of Zhejiang Jinju Chemical Co., Ltd., and RMB 380 million was increased to Zhejiang Quzhou Jusu Chemical

Co., Ltd., RMB 252.8488 million acquisition of Zhejiang Juhua Technology Center Co., Ltd., and RMB 18.41120 million acquisition of Juhua Group Finance Co., Ltd.

This is due to the 16% equity of the responsible company.

Unit: ten thousand yuan

Name of company invested	Main business	Investment method	Investment
Shanghai Aixin Liquefied Gas Limited the company	Wholesale hazardous chemicals, etc.	Capital increase	433.92
Zhejiang Quzhou Jusu Chemical Co., Ltd. the company	Polyvinylidene chloride resin, polyvinylidene chloride Production and sales of ene emulsion	Capital increase	38000
Lianzhou refrigerant in Quzhou, Zhejiang has Limited company	Blending and filling of single refrigerant	Capital increase	6000
iGas USA Inc.	Production, procurement, mixing, storage, transportation And sales of refrigerants and related products	New	1,000)
Zhejiang Jinju Chemical Co., Ltd.	production and sales of methanol, liquid ammonia, etc.	Capital increase	37000
Tianjin Bairui polymer materials Limited company	Plastic film products, machinery and equipment manufacturing, Processing, sales, etc.	Takeover	3046
Juhua Group Finance Co., Ltd.	CBRC approved business	Takeover	18411.2

the company

Zhejiang Juhua Technology Center Co., Ltd the company	Research on the development and application of new products and technologies Wait for	Takeover	25284.88
Zhejiang Juhua New Materials Research Institute Limited company	Technical development of chemical materials, chemical environmental protection, etc. Development, technology transfer, technology consulting services	Takeover	6,983.67

(1) Significant equity investment

√Applicable □Not applicable

Unit: ten thousand yuan

Invested company name	Main business	Investment method	Post bet	Book capital	Post-investment ratio
Zhejiang Quzhou Giant Plastic Chemical Co., Ltd.	Polyvinylidene chloride resin, polyvinylidene chloride Production and sales of vinyl chloride emulsion	Capital increase	73000	38000	100.00%
Zhejiang Jinju Chemical Limited company	Production and sales of methanol, liquid ammonia, etc.	Capital increase	73250	37000	64.85%
Juhua Group Finance limited liability company	CBRC approved business	Takeover	80000	18411.2	46.00%
Zhejiang Juhua Technology Center Co., Ltd.	Development and application of new products and technologies Research	Takeover	5000	25284.88	100.00%

(2) Material non-equity investments

√Applicable □Not applicable

unit: yuan

project name	Opening number	Increase in this period	Transfer to fixed assets Produce	End of period	Engineering progress degree(%)	Funds come source
100kt/a polyvinylidene chloride High performance ethylene barrier Materials Phase I	86,934,445.02	84,468,399.63	124,175,036.32	47,227,808.33	85	[Note]

[Note]: The raised funds invested 535 million yuan, and the rest were self-raised funds.

(3) Financial assets measured at fair value

√Applicable □Not applicable

unit: yuan

project name	Ending balance
Designated financial assets measured at fair value and whose changes are included in the current profit and loss	961,446,950.12

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(six) Major asset and equity sale

√Applicable □Not applicable

As approved by the tenth meeting of the seventh session of the board of directors of the company and the first extraordinary general meeting of the company in 2018, the company will be a wholly-owned subsidiary

The 100% equity of Zhejiang Kaisheng Fluorine Chemical Co., Ltd. and the 100% equity of Zhejiang Borui Electronic Technology Co., Ltd. are jointly conducted as a target

Publicly listed for transfer. For details, please refer to the company's Lin 2017-53 "Juhua shares transfer of equity of wholly-owned subsidiaries and change part of the raised capital investment

Project Announcement, Lin 2018-02 "Juhua Shares 2018 First Extraordinary General Meeting Resolution Resolution Announcement" and Lin 2018-08 "Juju

Announcement on the Progress of Equity Transfer of the Wholly-owned Subsidiaries

(Seven) Analysis of major holding companies

√Applicable □Not applicable

Subsidiaries and affiliates business Secretary of State	business nature	Business Scope	Registered capital (Ten thousand yuan)	Total assets (Ten thousand yuan)	Net assets (Ten thousand yuan)	Net profit (Ten thousand yuan)
Zhejiang Quhua Fluorine Chemical Limited company	Industry manufacture	Fluorine chemical raw materials and fluorine Refrigerant production and sales	22,359.22	197,691.08	166,679.27	60,659.54
Zhejiang Quzhou Juxin Fluorine Chemical Co., Ltd.	Industry manufacture	Fluorine refrigerant production and sales Sale	113,014.10	170,750.75	151,122.08	31,194.45
Zhejiang Quzhou fluorine chemical Engineering co., ltd.	Industrial manufacture	Production and sales of hydrofluoric acid	2,000.00	37,990.80	16,334.50	5,724.32
Zhejiang Quzhou Giant Plastic Engineering co., ltd.	Industrial manufacture	Trichloroethylene, PVDC Wait for production and sales	73,000.00	90,601.19	71,118.48	10,073.51
Tianjin Berry Polymer Materials Co., Ltd.	industry manufacture	Plastic film products Production and sales	1,036.83	2,049.11	1,652.12	-35.49
Ningbo Juhua Chemical Engineering Technology Co., Ltd.	Industrial manufacture	Organic chemical raw material production, Sales	26,231.67	121,780.49	105,356.78	41,019.09
Ningbo Juhua New Materials Limited company	industry manufacture	Chemical raw materials and products Production and sales	5,000.00	8,012.62	3,374.36	-237.48
Ningbo Juxie Energy has Limited company	commodity trading	Chemical raw materials and products Sales	5,000.00	28,063.64	11,173.32	859.59
Quzhou Juhua Nylon has	industry	Caprolactam, cyclohexanone				

Limited liability company	manufacture	Wait for production and sales	102,067.00	94,316.64	80,339.95	10,848.15	
Zhejiang Jusheng Fluorine Chemistry Limited company	industry manufacture	Production and sales of fluorine products	USD1,200	30,394.15	22,555.73		7,850.35
Zhejiang Quzhou Xin Ju Fluoride Materials Co., Ltd.	industry manufacture	Ultra high molecular weight poly four Production and sales of vinyl fluoride	3,000.00	1,792.82	1,404.72		-0.48
Zhejiang Borui Electronics Technology Co., Ltd.	industry manufacture	Electronic special gas products, etc. Production and sales	72,600.00	0.00	0.00		-979.50
Zhejiang Kaisheng Fluorine Chemistry Limited company	industry manufacture	Electronic wet chemical production Production and sales	15,000.00	0.00	0.00	-1,179.37	
Zhejiang Kaiheng Electronic Materials	industry	Electronic grade hydrofluoric acid	1,200.00	0.00	0.00		-45.44

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Materials Co., Ltd.	Manufacturing and sales						
From Quzhou Lianzhou, Zhejiang Refrigerant Co., Ltd.	Industry manufacture	Mixing and refrigerant charging Production	8,100.00	33,185.54	17,085.90		2,402.75
Zhejiang Juhua Lianzhou System Cold Technology Co., Ltd.	Industry manufacture	Mixing and refrigerant charging Production	6,000.00	6,036.00	5,941.09		-58.91
Zhejiang Jubang High-tech Technology Co., Ltd.	Industry manufacture	Food additives, etc. Production and sales	1,200.00	1,560.83	1,454.13		137.48
Zhejiang Lanxi Juhua Fluorine Chemical Co., Ltd.	Industry manufacture	Fluorine refrigerant production and sales Sale	5,000.00	15,889.39	11,827.25		6,180.62
Juhua Trading (Hong Kong) Limited company	Commodity trading	Chemical raw materials and products Sales	USD2,000	15,426.34	11,162.98		868.71
Zhejiang Juhua Inspection and Chemical Engineering Co., Ltd.	Installation service	Petrochemical plant and others Industrial equipment installation, maintenance repair	5,000.00	17,588.19	7,395.15		2,380.92
Zhejiang Lishui Huahua Engineering co., ltd.	Commodity trading	Chemical raw materials and products Sales	1,000.00	6,377.17	5,812.52		3,433.22
Zhejiang Jinju Chemical Limited company	Industry manufacture	Production and sales of ammonia products		86,251.95	67,697.03		1,555.33

Zhejiang Juhua Technology Heart Limited	technology service	New products, new technologies Development and applied research, The production of scientific research products Production and sales, technical consulting Inquiry and service	5,000.00	13,626.31	7,652.83	400.54
Zhejiang Juhua New Materials Research Institute Co., Ltd.	technology service	Production and sales of chemical materials Sales, technology development, technology Technical transfer, technical consultation	5,000.00	4,588.40	4,299.44	240.50
Juhua Group Finance Limited liability company	financial service	Operating the Chinese banking industry Supervision and Management Committee In accordance with relevant laws and regulations Political regulations and other regulations Approved business	80,000.00	393,559.82	106,547.61	6,366.36
Shanshan New Material (Quzhou State) Co., Ltd.	Industry manufacture	Production of lithium hexafluorophosphate, Sales	12,000.00	68,538.77	10,433.29	-6,928.25
Shanghai Juhua Industrial Development Exhibition Co., Ltd.	Comprehensive trading	Chemical raw materials and products Sales	7,000.00	17,790.27	6,512.05	368.36
Juhua Zhao, Quzhou, Zhejiang And electronic chemical materials Limited company	industry manufacture	Electronic chemical production, Sales	4,400.00	4,637.19	4,386.62	259.53
Quzhou Fuhuihua	industry	Production and sales of heptafluoropropane	1,200.00	5,817.63	1,909.46	383.40

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Industrial Technology Co., Ltd.	Manufacture	sale				
Zhejiang Silicon Valley Giant Investment Capital Management Co., Ltd.	investment	Investment management Inquiry (except securities, period Goods), equity investment and Related consulting services.	600.00	439.68	388.82	-49.76
Quzhou Juhuahuachenwu Flow Co., Ltd.	Warehousing, storage, goods		2,000.00	104.08	-1,479.55	-0.02
Zhejiang Juhua shares have Limited company Lanxi pesticide plant	industry manufacture	Pesticide production	2,688.00	9.40	-9,368.56	-0.14

Zhongjuxin Technology Co., Ltd.	Industry	Electronic chemical materials, chemical	600,000,000	111,034.18	100,733.58	-789.91
the company	manufacture	Production and sales of industrial products				
		Sale				
Shanghai Aixin LPG	commodity	Hazardous chemicals, chemical industry	428.00	8,782.39	1,852.68	1,048.65
Body Co., Ltd.	trading	Product wholesale, goods and				
		Technology Import and Export				
iGas USAInc	commodity trading	Chemical raw materials and products Sales	USD2941.17	41,661.58	19,574.19	-595.87

Note: The company holds Zhejiang Borui Electronic Technology Co., Ltd., Zhejiang Kaisheng Fluorine Chemical Co., Ltd. and its subsidiary Zhejiang Kaiheng Electronic Materials The shares of Material Co., Ltd. were all transferred to Zhongjuxin Technology Co., Ltd. in April 2018.

Explanation of the impact of the net profit derived from a single subsidiary or the investment income of a single shareholding company on the company's net profit of more than 10%:

Subsidiaries and associated companies	Operating income (ten thousand yuan)	Operating profit (ten thousand yuan)	Net profit (ten thousand yuan)
Zhejiang Quhua Fluorine Chemical Co., Ltd.	356,047.49	67,074.65	60,659.54
Zhejiang Quzhou Juxin Fluorine Chemical Co., Ltd.	214,217.99	40,423.18	31,194.45
Ningbo Juhua Chemical Technology Co., Ltd.	211,822.82	48,953.84	41,019.09

In 2018, the company's 3 subsidiaries and associated companies had a performance change of more than 30%, and had a significant impact on the company's consolidated operating performance. The performance changes and reasons are as follows:

company name	Net profit (ten thousand yuan) 2018	2017	Variation%	Reason for change
Zhejiang Quhua Fluorine Chemical Co., Ltd.	60,659.54	28,674.83	111.54	Product price increase and production and sales Volume increase
Zhejiang Quzhou Juxin Fluorine Chemical Co., Ltd.	31,194.45	22,100.97	41.15	Product price increase and production and sales Volume increase
Ningbo Juhua Chemical Technology Co., Ltd.	41,019.09	21,382.41	91.84	Product price increase and production and sales Volume increase

(Eight) The situation of the structured subject controlled by the company

□Applicable √Not applicable

3. The company's discussion and analysis on the company's future development

(One) Industry pattern and trends

√Applicable □Not applicable

For details, please refer to "Industry Basics" in "Analysis of Operating Information in Chemical Industry" in Section 4 "Discussion and Analysis of Business Situation" of this report.

(two) Company development strategy

√Applicable □Not applicable

1. Company development strategy

Company Vision: To be a respected enterprise.

Company mission: to become a first-class enterprise.

The company's development strategy: adhere to scientific development, open development, integrated development, industrial management and capital management are equally important, management, technology Combining technology, market, and mechanism innovation, with fluorine chemical as the core, new materials, new environmental protection, new energy, and new uses as industrial transformation Upgrading direction, give full play to the company's accumulated competitive advantages, accelerate innovation-driven, transformation and upgrading, and realize the characteristic industrialization of industrial bases, Integration of the industrial chain, high-end products, serialization, high-quality, refined, differentiated, and complex, making the company a domestic The leader of fluorine chemical industry, the domestic first-class chemical new material supplier and service provider.

2. Business unit strategy

(1) Fluorine chemical development strategy

Fluorine chemical is the company's core main business, insisting on the development path of high-end, specialization, internationalization, and technology leadership, fluorine polymerization Substances, ODS substitutes, fluorine-containing electronic chemicals, and fluorine-containing fine chemicals, coordinate development, give priority to the development of fluorine materials, and further enrich fluorine Connotation of the chemical industry chain, forming an industrial pattern of large-scale basic raw materials, serialization of intermediate products, and refinement and functionalization of downstream products, Initially realize the transformation of fluorine chemical to high-end, materialization and specialization; build the company into the most comprehensive fluorine chemical in China Enterprises, enhance and establish the leadership, initiative and control in the field of domestic fluoride industry, achieve sustainable development, and make the company a country The world's first-class fluoride chemical enterprises lay a solid industrial foundation.

(2) Development strategy of chlor-alkali sector

Adhere to the linkage of fluorine and chlorine, take the high-tech industry as the leading factor, support and promote the development of the company's fluorine chemical industry; further strengthen the production of chlor-alk The industry has advantages in technology, market, brand, product structure, etc., relying on technology, management and system innovation to cultivate independent research and development capabilities and nuclear Focus on competitiveness, build a new chlor-alkali industry chain centered on new chlor-alkali materials and special chlorine-containing chemicals; Ningbo base's port advantage, accelerate the effective integration of the company's local port and Ningbo base resources, and strengthen the development of new varieties and new technology products.

3. The basic situation of the company

1. Company Overview

√Applicable □Not applicable

Zhejiang Juhua Co., Ltd. (hereinafter referred to as the company or the company) approved by the Zhejiang Provincial People's Government, Zhejiang Zhengfa [1998] No. 68, Initiated and established by Juhua Group Co., Ltd., registered on June 17, 1998 with Zhejiang Provincial Administration for Industry and Commerce In Quzhou City, Zhejiang Province. The company now holds a business license with a unified social credit code of 91330000704204554C and registered capital 2,745,166,103.00 yuan, the total number of shares is 2,745,166,103 shares (each par value is 1 yuan). Among them, the circulation of limited sales conditions Shares: 86,746,046 A-shares; 2,658,420,057 A-shares with unlimited sales. The company's stock was listed in 1998 Listed on the Shanghai Stock Exchange on June 26, 2014.

The company belongs to the chemical industry. The main business activities are research and development, production and sales of chemical raw materials and products, food additives, Cylinder inspection, provide related technical services, consultation and technology transfer, and operate import and export business. The main products are: refrigerant, petrochemical Materials, fluorinated chemical raw materials, fluoropolymer materials, food packaging materials, fluorinated fine chemicals, basic chemical products and others.

The financial statements were approved by the company on April 17, 2019, and the 24th meeting of the seventh board of directors approved the report.

2. Scope of consolidated financial statements

√Applicable □Not applicable

The company will Zhejiang Jubang High-tech Co., Ltd. (hereinafter referred to as Jubang High-tech Company), Zhejiang Lanxi Juhua Fluorine Chemical Co., Ltd. Division (hereinafter referred to as Lanxi Fluoride Company), Zhejiang Quhua Fluorine Chemical Co., Ltd. (hereinafter referred to as Quhua Fluoride Company), Zhejiang Quzhou Ju Plastic Chemical Co., Ltd. (hereinafter referred to as Juju Chemical Company), Ningbo Juhua Chemical Technology Co., Ltd. (hereinafter referred to as Ningbo Juhua Company), Zhejiang Quzhou Juxin Fluorine Chemical Co., Ltd. (hereinafter referred to as Juxin Fluoride Company), Ningbo Juxie Energy Co., Ltd. (hereinafter referred to as Ningbo) Juxie Company), Zhejiang Quzhou Xinju Fluorine Material Co., Ltd. (hereinafter referred to as Quzhou Xinju Company), Juhua Trading (Hong Kong) Co., Ltd. Division (hereinafter referred to as Juhua Hong Kong Company), Zhejiang Jusheng Fluorine Chemical Co., Ltd. (hereinafter referred to as Jusheng Fluorine Company), Quzhou Juhuajin Co., Ltd. (hereinafter referred to as Juhua Nylon Company), Zhejiang Quzhou Lianzhou Refrigerant Co., Ltd. (hereinafter referred to as Lianzhou Refrigeration Company) Division), Ningbo Juhua New Materials Co., Ltd. (hereinafter referred to as Ninghua New Materials Co., Ltd.), Zhejiang Quzhou Fluorine New Chemical Co., Ltd. (hereinafter referred to as Referred to as Fuxin Chemical Company), Zhejiang Juhua Jian'an Petrochemical Engineering Co., Ltd. (hereinafter referred to as Jian'an Petrochemical Company), Zhejiang Lishui Fuhua

Chemical Co., Ltd. (hereinafter referred to as Lishui Fuhua Company), Zhejiang Juhua New Materials Research Institute Co., Ltd. (hereinafter referred to as the Research Institute), Zhejiang Jinju Chemical Co., Ltd. (hereinafter referred to as Jinju Chemical Company), Zhejiang Juhua Technology Center Co., Ltd. (hereinafter referred to as technology in Xin), Tianjin Bairui Polymer Material Co., Ltd. (hereinafter referred to as Tianjin Bairui Company) and Zhejiang Juhua Lianzhou Refrigeration Technology Co., Ltd (Hereinafter referred to as Juhua Lianzhou Company) and 21 other Sun subsidiaries are included in the scope of the consolidated financial statements of this period.

Note the change in the scope of consolidation and the description of equity in other entities.

Fourth, the basis for the preparation of financial statements

1. Basis of preparation

The company's financial statements are prepared on the basis of continuous operations.

2. Continue to operate

√Applicable □Not applicable

The company has no events or circumstances that have caused significant doubts about the ability to continue operations within 12 months from the end of the reporting period.

V. Important accounting policies and accounting estimates

Specific accounting policies and accounting estimation tips:

√Applicable □Not applicable

Important note: The company accrues the provision for bad debts of receivables, depreciation of fixed assets, and intangibles based on actual production and operation characteristics

Specific accounting policies and accounting estimates have been formulated for transactions or events such as asset amortization and revenue recognition.

1. Statement of compliance with corporate accounting standards

The financial statements prepared by the company comply with the requirements of enterprise accounting standards, and truly and completely reflect the company's financial status and operations Achievements, changes in shareholders' equity and cash flow and other relevant information.

2. Accounting period

The company's fiscal year starts on January 1 and ends on December 31 of the Gregorian calendar.

3. Business cycle

√Applicable □Not applicable

The business cycle of the company's business is relatively short, with 12 months as the standard for dividing the liquidity of assets and liabilities.

5. The continuous third-level fair value measurement project, the adjustment information and unobservable parameter sensitivity between the opening and closing book value of the period
Sex analysis

□Applicable √Not applicable

6. For the continuous fair value measurement project, if there is a conversion between all levels during the period, the reason for the conversion and the policy to determine the time of conversion
Policy

□Applicable √Not applicable

7. Changes in valuation techniques and the reasons for the changes during the period

□Applicable √Not applicable

8. Fair value of financial assets and financial liabilities not measured at fair value

□Applicable √Not applicable

9. Others

□Applicable √Not applicable

12. Related parties and related transactions

1. The parent company of the company

√Applicable □Not applicable

Unit: Ten Thousand Yuan Currency: RMB

Parent company name	Registration	Nature of business	Registered capital	Parent company Shareholding ratio (%)	Parent company to the enterprise Of voting rights (%)
Juhua Group has Limited company	Hangzhou	Manufacturing, business Wait	400,000.00	51.91%	54.09%

Description of the parent company of the company

As of December 31, 2018, Juhua Group Co., Ltd. directly held 38.65% of the company's shares, and another 13.26%

The shares are deposited as the trust and guarantee property of 17 Juhua EB in Juhua Group-Zheshang Securities-17 Juhua EB Guarantee and Trust Property

Account (with Zheshang Securities, the trustee of 17 Juhua EB as the nominal holder), through its wholly-owned subsidiary Zhejiang Juhua Investment Co., Ltd.

The company holds 2.18% of the company's shares, and the total voting right ratio is 54.09%.
The ultimate controlling party of this enterprise is the State-owned Assets Supervision and Administration Commission of Zhejiang Provincial People's Government
other instructions:
no

2. The company's subsidiaries

For details of the company's subsidiaries, see the note
√Applicable □Not applicable
For details, please refer to the explanation of the equity in other entities in the notes to the financial statements.

3. The company's joint ventures and associated enterprises

Please refer to the notes for the important joint ventures or associates of the company
□Applicable √Not applicable

Other joint ventures or associated enterprises that have had a related party transaction with the company in the current period, or have a balance with the company in the previous period details as following
√Applicable □Not applicable

Name of joint venture or joint venture	Relationship with the company
IGAS USA, INC.	The company's associates
Shanghai Juhua Industrial Development Co., Ltd.	The company's associates
Shanshan New Materials (Quzhou) Co., Ltd.	The company's associates
Zhejiang Engineering Design Co., Ltd.	The company's associates
Zhejiang Quzhou Fuhui Chemical Technology Co., Ltd.	The company's associates

Shanghai Aixin Liquefied Gas Co., Ltd.	The company's associates
Zhejiang Quzhou Juhua Showa Electronic Chemical Materials Co., Ltd. Electronic Chemical Division	The company's associates
Juhua Group Finance Co., Ltd.	The company's associates
Zhejiang Jinju Chemical Co., Ltd.	[Note 1]
Zhejiang Borui Electronic Technology Co., Ltd.	[Note 2]
Zhejiang Kaisheng Fluorine Chemical Co., Ltd.	[Note 2]
Zhejiang Kaiheng Electronic Material Co., Ltd.	[Note 2]

other instructions
√Applicable □Not applicable
[Note 1]: In September 2018, Zhejiang Jinju Chemical Co., Ltd. was changed from an associate to a subsidiary due to the company's capital increase.

[Note 2]: In April 2018, Zhejiang Borui Electronic Technology Co., Ltd., Zhejiang Kaisheng Fluorine Chemical Co., Ltd. and its subsidiaries Zhejiang

Jiang Kaiheng Electronic Materials Co., Ltd. was changed from a subsidiary of the company to a subsidiary of an associated company due to the equity transfer.

4. The situation of other related parties

√Applicable □Not applicable

Name of other related parties	Relationship between other related parties and the company
Juhua Group Corporation Automobile Transportation Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Equipment Manufacturing Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Chemical Mining Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Chemical Materials Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Juhua Group Company Xinghua Industrial Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Calcium Carbide Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Logistics Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Gerui New Materials Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Xinlian Chemical Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Quzhou Fluorosilicone Technology Research Institute	Also controlled by Juhua Group Co., Ltd.
Zhejiang South Engineering Construction Supervision Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Juhua Holdings Limited	Also controlled by Juhua Group Co., Ltd.
Zhejiang Kejian Safety and Health Consulting Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Group Import and Export Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juhua Hanzheng New Material Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Juhua Group Corporation Engineering Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Qingke Environmental Protection Technology Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Huajiang Technology Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Quzhou Jutai Building Material Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Juhua Group Pharmaceutical Factory	Also controlled by Juhua Group Co., Ltd.
Quzhou Juhua Renewable Resources Technology Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Quzhou Qingtai Environmental Engineering Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Quzhou Qingyuan Biological Technology Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Jinhua New Materials Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Zhejiang Juxing Optical Material Co., Ltd.	Also controlled by Juhua Group Co., Ltd.
Quzhou Chemical Industry Company Shanghai Debang Company	Also controlled by Juhua Group Co., Ltd.
Lanxi Pesticide Factory	Settlement of unregistered companies
Lanxi Shuangfeng Julong Water Supply Co., Ltd.	Subsidiary company
Juhua Group Company Shangyu Joint-stock Company	Shareholding company of Juhua Group Co., Ltd.

Zhejiang Feida Environmental Protection Technology Co., Ltd.	Also controlled by Juhua Group Co., Ltd.

other instructions
no

5. Related party transactions

(1). Connected transactions for the purchase and sale of goods, provision and acceptance of labor services

Procurement of goods / acceptance of labor services
√Applicable □Not applicable

Unit: Currency: RMB

Related party	Related transaction content	Current amount	Amount in the previous period
Juhua Group Co., Ltd.	Materials, hydropower, etc.	2,362,818,813.23	2,031,097,204.12
Zhejiang Jinju Chemical Co., Ltd.	Methanol, nitrogen, etc.	515,518,739.46	553,853,481.63
Juhua Group Corporation Automobile Transportation Co., Ltd.	freight, repair services, etc.	363,998,048.42	237,961,986.10
Zhejiang Juhua Equipment Manufacturing Co., Ltd.	Engineering materials, spare parts, etc.	67,506,828.10	36,726,486.37
Zhejiang Juhua Chemical Mining Co., Ltd.	Fluorite mine	65,446,333.35	66,284,099.72
Zhejiang Juhua Chemical Materials Co., Ltd.	Engineering materials, color expansion fee, etc.	5,214,115.33	14,618,386.65
Juhua Group Company Xinghua Industrial Co., Ltd.	Greening fee, meal fee, etc.	36,646,253.99	43,537,992.92
Zhejiang Juhua Calcium Carbide Co., Ltd.	High-purity nitrogen, calcium carbide, etc.	25,456,011.13	29,794,467.80
Zhejiang Juhua Logistics Co., Ltd.	Freight, warehousing services, etc.	5,498,919.83	3,869,973.74
Zhejiang Gerui New Materials Co., Ltd.	Steel lined PTFE straight pipe, etc.	5,201,834.21	14,506,069.67
Shanghai Juhua Industrial Development Co., Ltd.	Bituminous coal, technical consulting services, etc.	3,839,696.85	166,337.83
Zhejiang Juhua Xinlian Chemical Co., Ltd.	Woven bags	3,692,695.79	60,613,224.82
Quzhou Fluorosilicone Technology Research Institute	Testing fee, consulting service	3,527,097.08	1,797,659.25
Supervision service of Zhejiang South Engineering Construction Supervision Co., Ltd.		3,389,502.01	2,443,138.91
Juhua Holdings Limited	consultation service	1,547,169.82	
Zhejiang Borui Electronic Technology Co., Ltd.	Hydrogen chloride	1,497,432.00	
Zhejiang Kejian Safety & Health Consulting Co., Ltd.	Hazard Prevention Evaluation Service	639,622.64	
Shanshan New Materials (Quzhou) Co., Ltd.	lithium hexafluorophosphate	436,068.38	670,016.56
Zhejiang Kaisheng Fluorine Chemical Co., Ltd.	Nitric acid, hydrochloric acid, etc.	354,128.21	
Zhejiang Juhua Group Import and Export Co., Ltd.	chemical raw materials	309,860.68	3,802,921.92
Zhejiang Juhua Hanzheng New Materials Co., Ltd.	chemical raw materials	287,145.21	1,078,888.89
Juhua Group Corporation Engineering Co., Ltd.	Repair costs, etc.	159,262.04	40,264,778.00
Zhejiang Qingke Environmental Protection Technology Co., Ltd.	Technology Consulting Services	61,320.76	
Zhejiang Huajiang Technology Co., Ltd.	Technical testing services	57,60.38	2,564.11
Zhejiang Quzhou Jutai Building Material Co., Ltd.	Weighing fees	53,070.32	
Zhejiang Engineering Design Co., Ltd.	Technical Advisory Services	37,735.85	1,149,260.01
Juhua Group Pharmaceutical Factory	Warehousing Services	8,490.57	
Zhejiang Quzhou Fuhui Chemical Technology Co., Ltd.	anhydrous hydrofluoric acid		3,896,154.70
Lanxi Shuangfeng Julong Water Supply Co., Ltd.	utilities		177,366.99
total		3,417,201,855.64	3,148,312,460.71

Sales of goods / provision of services
√Applicable □Not applicable

Unit: Currency: RMB

Related party	Related transaction content	Current amount	Amount in the previous period
IGAS USA. INC.	Material sales	233,708,704.68	

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Juhua Group Corporation Engineering Co., Ltd.	Utilities, etc.	399,206.48	551,017.54
Juhua Group Company Automobile Transportation Co., Ltd.	Material Sales	177,004.39	165,667.28
Juhua Group Corporation Xinghua Industrial Co., Ltd.		1,394,312.54	1,740,054.66
Juhua Group Pharmaceutical Factory	Electricity, steam, nitrogen, etc.	1,004,416.33	1,007,202.86
Juhua Group Co., Ltd.	Technical service, inspection and maintenance	40,920,357.09	33,995,373.81
Quzhou Fluorosilicone Technology Research Institute	Utilities, etc.	251,526.45	
Quzhou Juhua Renewable Resources Technology Co., Ltd.	scrap steel, etc.	1,421,333.35	1,428,311.96
Quzhou Qingtai Environmental Engineering Co., Ltd.	material sales, inspection and maintenance	6,120,547.26	3,976,621.77
Quzhou Qingyuan Biological Technology Co., Ltd.	Material sales, inspection and maintenance	129,693.38	
Shanshan New Materials (Quzhou) Co., Ltd.	material sales, inspection and maintenance	148,907.25	2,101,729.65
Shanghai Aixin Liquefied Gas Co., Ltd.	Sales of refrigerants and other materials	303,999,225.04	
Shanghai Juhua Industrial Development Co., Ltd.	Sales of materials such as methyl chloride	45,465,229.10	50,324,955.65
Zhejiang Borui Electronic Technology Co., Ltd.	Sales of materials such as hydrogen chloride	7,902,880.01	
Zhejiang Huajiang Technology Co., Ltd.	Biological filter material	684,753.55	
Zhejiang Jinhua New Materials Co., Ltd.	liquid ammonia and other materials sales	34,005,675.21	14,399,789.15
Zhejiang Jinju Chemical Co., Ltd.	Material sales, inspection and maintenance	26,303,767.99	8,595,232.07
Zhejiang Juhua Calcium Carbide Co., Ltd.	Inspection and maintenance	1,189,678.00	
Hexafluoropropylene and other materials sales of Zhejiang Juhua Hanzheng New Materials Co., Ltd.		20,743,547.17	12,614,033.81
Zhejiang Juhua Chemical Materials Co., Ltd.	Anhydrous calcium chloride	23,566,770.17	3,971,863.25
Zhejiang Juhua Chemical Mining Co., Ltd.	Calcium carbide slag	3,405.93	5,555.47
Zhejiang Juhua Group Import and Export Co., Ltd.	industrial salt, ammonium sulfate	3,780,662.29	5,156,567.36
Zhejiang Juhua Logistics Co., Ltd.	Inspection and maintenance	112,043.85	68,375.94
Zhejiang Juhua Xinlian Chemical Co., Ltd.	Hydrochloric acid treatment fee	3,687.13	4,251,309.90
Zhejiang Juhua Equipment Manufacturing Co., Ltd.	Inspection and maintenance	968,962.44	8,497,216.37
Zhejiang Kaiheng Electronic Material Co., Ltd.	Anhydrous hydrofluoric acid, etc.	53,929,402.81	
Zhejiang Kaisheng Fluorine Chemical Co., Ltd.	Anhydrous hydrofluoric acid, etc.	16,171,924.70	
Zhejiang Qingke Environmental Protection Technology Co., Ltd.	Fresh-keeping bag, fresh-keeping film	2,612.07	
Zhejiang Quzhou Fuhui Chemical Technology Co., Ltd.	material sales, labor costs, etc.	159,667,667.70	195,088,125.92
Zhejiang Gerui New Materials Co., Ltd.	Material sales	29,617,824.22	17,918,704.70
Zhejiang Quzhou Juhua Showa Electronic Chemical Materials Limited company	Cyclohexanone, water, electricity and steam	18,078,826.91	15,971,235.46
Zhejiang Quzhou Jutai Building Material Co., Ltd.	Slag gypsum, etc.	4,378,763.88	4,156,026.15
total		1,007,553,319.37	395,984,970.73

Description of related party transactions for the purchase and sale of goods, provision and acceptance of labor services
□Applicable √Not applicable

(2). Related commissioned management/contracting and entrusted management/outsourcing
The company's entrusted management/contracting situation table:
√Applicable □Not applicable

Unit: Currency: RMB

Client/outsourcing Party name	Trustee/Contractor Party name	Trusted/Contracted Type of production	Trusted/Contracted Start date	Trusted/Contracted Expiration date	Escrow revenue/commitment Package revenue is pr according to	The current confirmation Management income/contract income
Juhua Group Limited the company	Our company	Other assets tube	2016 12 January 1	December 2018 December 31	600,000/year (including tax)	566,037.74
Juhua Group Limited the company	Our company	Other assets tube	2017 12 January 1	2019 12 December 31	10,000/month (including tax)	113,207.54

Description of related hosting/contracting
√Applicable □Not applicable

(1) Juhua Group Co., Ltd. entrusted the company to manage Zhejiang Juhua Xinlian Chemical Co., Ltd. and Juhua Group Company's plasticizing plant

The daily production and operation activities of the enterprise are entrusted from January 1, 2016 to December 31, 2018.

After the expiry of the contract, if the parties to the contract do not raise any objection, the entrusted management period is automatically extended by 1 year, and the entrusted management fee is 600,000 yuan/year

tax). In the current period, 600,000 yuan (including tax) for the custody fee was received, and 600,000 yuan (including tax) was received in the same period last year.

(2) Juhua Group Co., Ltd. entrusted the company to manage the daily production and operation activities of Zhejiang Juhua Carbide Co., Ltd.

From January 1, 2017 to December 31, 2019, after the expiration of the entrusted management period, if the parties to the contract do not raise an objection, the entrust

The management period is automatically extended for 1 year, and the standard of entrusted management fees is 10,000/month (including tax), which is settled every six months. This period has received

The management fee is 120,000 yuan (including tax).

The company entrusted management / outsourcing situation table
□Applicable √Not applicable
Related management/outsourcing information
□Applicable √Not applicable

(3). Related lease

The company as the lessor:
√Applicable □Not applicable

Unit: Currency: RMB

Tenant name	Lease assets class	Rental income recognized in the current period	Income recognized in the previous period

Zhejiang Quzhou Juhua Showa Electronic Chemicals Limited company	Industrial Land	380,952.38
Industrial Land of Zhejiang Quzhou Fuhui Chemical Technology Co., Ltd.		161,349.04

The company as the lessee:

√Applicable □Not applicable

Unit: Currency: RMB

Lessor name	Types of leased assets	The lease fee confirmed in the current period	The lease fee confirmed in the previous period
Juhua Group Pharmaceutical Factory	warehouse	25,471.70	16,216.22
Juhua Group Co., Ltd.	Plant	3,589,889.36	1,373,312.87
Juhua Group Co., Ltd.	Office building	378,300.00	100,000.00
Zhejiang Juhua Calcium Carbide Co., Ltd.	Vehicle	232,262.39	217,825.23
Zhejiang Juhua Logistics Co., Ltd.	warehouse	7,727.27	7,657.66
Warehouse of Zhejiang Juxing Optical Material Co., Ltd.		193,200.00	193,200.00
Warehouse of Zhejiang Quzhou Jutai Building Materials Co., Ltd.		363,591.15	78,120.00
Factory Building of Zhejiang Juhua Equipment Manufacturing Co., Ltd.		1,960,000.00	
Juhua Group Corporation Engineering Co., Ltd.	Equipment	316,012.07	
total		7,066,453.94	1,986,331.98

Related lease description

□Applicable √Not applicable

(4). Related guarantees

The company as the guarantor

□Applicable √Not applicable

The company as the guaranteed party

√Applicable □Not applicable

Unit: Currency: RMB

guarantor	Guarantee amount	Guarantee start date	Guarantee maturity date	Whether the guarantee has been fulfilled complete
Juhua Group Co., Ltd.	29,990,000.00	2018-6-21	2019-5-24	no
Juhua Group Co., Ltd.	20,000,000.00	2018-3-15	2019-3-14	no

Description of related guarantee

□Applicable √Not applicable

(5). Fund borrowing of related parties

√Applicable □Not applicable

Unit: Currency: RMB

Related party	Borrowing amount	Start date	expiry date	Explanation
Break in				
Lanxi City Shuangfeng Giant Dragon Water Co., Ltd.	1,640,030.04			Shuangfeng Dragon has occupied the funds in All returned in January 2018
Juhua Group Co., Ltd.	53,330,000.00			Jinju Chemical Company is controlled by the company Before the merger, Xianghua Group Co., Ltd. Loan from the company 53,330,000.00 Yuan, the company's holding merger Jinjuhua Transferred into the industrial company.
Take out				

(6). Asset transfer and debt restructuring of related parties

√Applicable □Not applicable

Unit: Currency: RMB

Related party	Related transaction content	Current amount	Amount in the previous period
Juhua Group Co., Ltd.	Disposal of fixed assets	7,918.00	
Quzhou Juhua Renewable Resources Technology Co., Ltd.	disposes of fixed assets	139,207.93	
Zhejiang Jinju Chemical Co., Ltd. (before merger)	purchased forklift	30,709.00	175,864.00
Juhua Group Corporation Engineering Co., Ltd.	Purchase equipment	463,222.52	17,314.49
Juhua Group Co., Ltd.	Purchase equipment	3,502,304.12	21,243,035.32
Purchase land use rights		7,835,290.93	
Zhejiang Engineering Design Co., Ltd.	Purchase equipment	243,138.72	3,419,805.13
Zhejiang Juhua Group Import and Export Co., Ltd.	Purchase equipment	7,962,035.68	22,940,269.36
Zhejiang Juhua Xinlian Chemical Co., Ltd.	Purchase equipment	5,481.04	56,414,343.40
Zhejiang Juhua Equipment Manufacturing Co., Ltd.	Purchase equipment	70,678,007.77	47,137,064.47
Zhejiang Juhua Chemical Materials Co., Ltd.	Purchase equipment		2,491,050.60
Zhejiang Feida Environmental Protection Technology Co., Ltd.		184,112,000.00	
total		1,529,395,327.10	161,674,037.70

(7). Key management personnel compensation

√Applicable □Not applicable

Unit: Ten Thousand Yuan Currency: RMB

project	Current amount	Amount in the previous period
Key management personnel compensation	361.07 million	RMB 3.2092 million

(8). Other related party transactions

√Applicable □Not applicable

(1) Juhua Group Co., Ltd., Juhua Group Company Engineering Co., Ltd., Zhejiang Engineering Design Co., Ltd., Juhua Group Xuanhua Industrial Co., Ltd., Zhejiang Juhua Equipment Manufacturing Co., Ltd., Zhejiang Gerui New Materials Co., Ltd. and Zhejiang Qingkehuan Bao Technology Co., Ltd. provides construction and installation services and engineering design services to the company and its subsidiaries through bidding 12.46294 million yuan, 85.833 million yuan, 36.695 million yuan, 7.629 million yuan, 31.607 million yuan, 1.0002 million yuan and RMB 187,800, the total amount of such services in the same period last year was RMB 83.9076 million. Quzhou Qingtai Environmental Engineering Co., Ltd. Jiang Quzhou Jutai Building Materials Co., Ltd. provided waste liquid and sewage treatment services to the company and its subsidiaries for a total of 61,650,500 yuan. The same period last year was RMB 47,495,500. Juhua Group Co., Ltd. and Zhejiang Jinju Chemical Co., Ltd. to the company and its subsidiaries The total amount of transferred sewage rights is 2.201 million yuan.

(2) As approved by the company's board of directors in the last period, the subsidiary Jusu Company will develop its 100kt/a polyvinylidene chloride high-performance barrier material project (Phase I) Sections B and C adopt the (EPC) project general contracting method and are issued to Juhua Group Corporation Engineering Co., Ltd., Zhejiang Juhua Equipment Manufacturing Co., Ltd. and Zhejiang Engineering Design Co., Ltd. The B and C sections of this project have been completed and converted to solid. A total of RMB 27,135,300 was paid for the total contracting cost of the project, and RMB 72,093,300 was paid in advance for the same period last year. Simultaneously 18 years D The project was started, and the (EPC) project general contracting method was adopted, which was issued to Zhejiang Juhua Equipment Manufacturing Co., Ltd. and Zhejiang Engineering Design For the limited company, a total of RMB 23,233,900 was paid for the general contracting cost of the project in this period.

(3) Transactions with Juhua Group Finance Co., Ltd.

(1) Entrusted deposits in the current period

Opening number	Increase in this period	Decrease in this period	Ending balance
304,245,174.36	38,493,949,974.53	38,269,457,939.06	528,737,209.83

2. Loan acceptance status

Opening number	Increase in this period	Decrease in this period	Ending balance
5,000,000.00	5,000,000.00	5,000,000.00	5,000,000.00

3. Juhua Group Finance Co., Ltd. received interest of RMB 5,635,008.77 in the current period, which was 2,956,076.78 in the same period of the previous year yuan.

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4. The loan interest paid to Juhua Group Finance Co., Ltd. was 193,877.08 yuan in the current period, compared with 188,681.25 in the same period last year yuan.

6. Receivables due from related parties

(1). Items receivable

√Applicable □Not applicable

Unit: Currency: RMB

project name	Related party	Ending balance		Opening Balance	
		Book balance	Bad debt provision	Book balance	Bad debt provision
Bills receivable and accounts receivable	GAS USA, INC.	24,593,101.95	1,229,655.10		
Bills receivable and accounts receivable	Juhua Group Co., Ltd.	21,277,887.26	295.83	16,045,382.49	751,769.11
Bills receivable and accounts receivable	Shanshan New Materials (Quzhou) Limited company	15,369.52	1,536.95	97,293,844.69	4,864.69
Bills receivable and accounts receivable	Zhejiang Borui Electronic Technology Limited company	103,783.56	4,104.66		
Bills receivable and accounts receivable	Zhejiang Gerui New Materials Limited company	8,744,970.60	437,248.53		
Bills receivable and accounts receivable	Zhejiang Jinhua New Material Co., Ltd.	7,053,685.18	352,684.26		
Bills receivable and accounts receivable	Zhejiang Kaiheng Electronic Materials Limited company	2,144,859.42	107,227.97		
Bills receivable and accounts receivable	Zhejiang Kaisheng Fluorine Chemical Co., Ltd. Limited company	756,859.06	87,832.95		
Bills receivable and accounts receivable	Zhejiang Quzhou Fuhui Chemical Technology Co., Ltd	3,977,494.45	198,874.72	13,593,935.91	334,696.80
Bills receivable and accounts receivable	Zhejiang Quzhou Juhua Showa Limited electronic chemical materials the company	106,740.47	5,337.02		
Bills receivable and accounts receivable	Zhejiang Juhua Chemical Mining Limited company	113.74	5.69	390.62	19.53
Bills receivable and accounts receivable	Lanxi Pesticide Factory	60,266,197.95	33,507,430.15	60,266,197.95	33,507,430.15

Bills receivable and accounts receivable	Zhejiang Jinju Chemical Co., Ltd. the company				3,750.00	187.50	
Bills receivable and accounts receivable	Zhejiang Juhua Hanzheng New Materials Materials Co., Ltd.				5,682,377.27	284,118.86	
Bills receivable and accounts receivable	Zhejiang Juhua Equipment Manufacturing Limited company				6,339,527.36	316,976.37	
Bills receivable and accounts receivable	Juhua Group Company Engineering Limited company				366,630.86	18,331.54	
Bills receivable and accounts receivable	Zhejiang Juhua Chemical Materials Limited company	100,000.00			982,000.00		
Bills receivable and accounts receivable	Shanghai Juhua Industrial Development Limited company				77,595.00		

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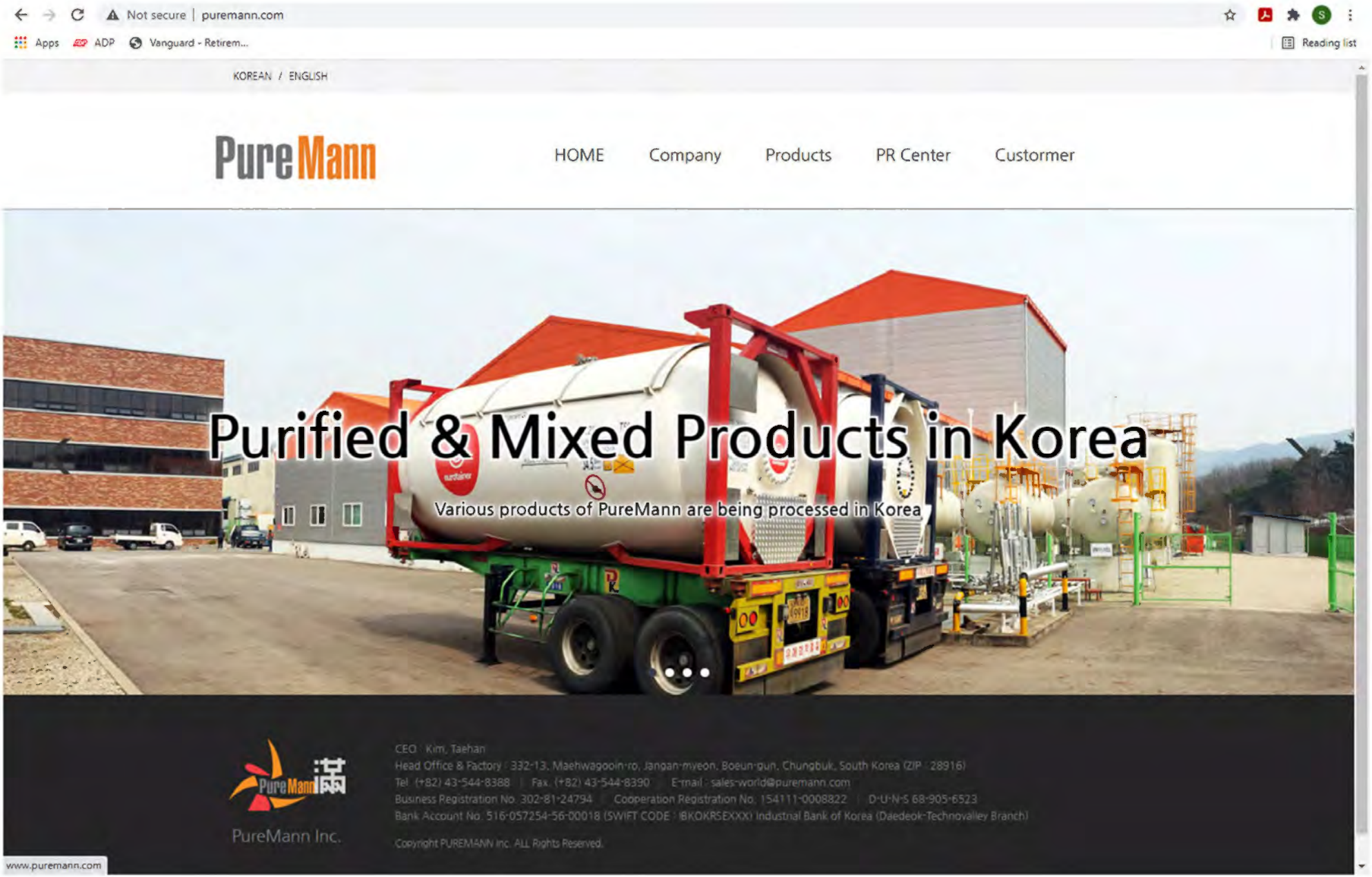
Subtotal		130,550,563.16	35,932,233.84	103,455,081.30		35,218,394.55	
Prepayments	Juhua Group Co., Ltd.	74,046.60			652,480.60		
Prepayments	Quzhou Qingtai Environmental Engineering Cheng Co., Ltd.	45,226.00			6,498.18		
Prepayments	Zhejiang Juhua Hanzheng New Materials Materials Co., Ltd.	326,554.29					
Prepayments	Zhejiang Juhua Chemical Mining Limited company	0.08					
Prepayments	Zhejiang Juhua Logistics Co., Ltd. the company	16,078.90					
Prepayments	Zhejiang Juhua Equipment Manufacturing Limited company	76,298.33					
Prepayments	Zhejiang Juhua Group Mouth co., ltd.				580,000.00		
Subtotal		538,204.20			1,238,978.78		
Other receivables	Juhua Group Company Engineering Limited company	10,237.31	511.87				
Juhua Group Co., Ltd.		17,130.00	856.50	100,600.00	10,030.00		
Other receivables	Lanxi Pesticide Factory	92,864,321.67	51,631,675.43	92,864,321.67		51,631,675.43	
Other receivables	Lanxi City Shuangfeng Giant Dragon Water Co., Ltd.				1,640,030.04	280,253.37	
Other receivables	Shanshan New Materials (Quzhou) Limited company	20,000.00	1,000.00				

Exhibit 9

Attachment 2



Attachment 2

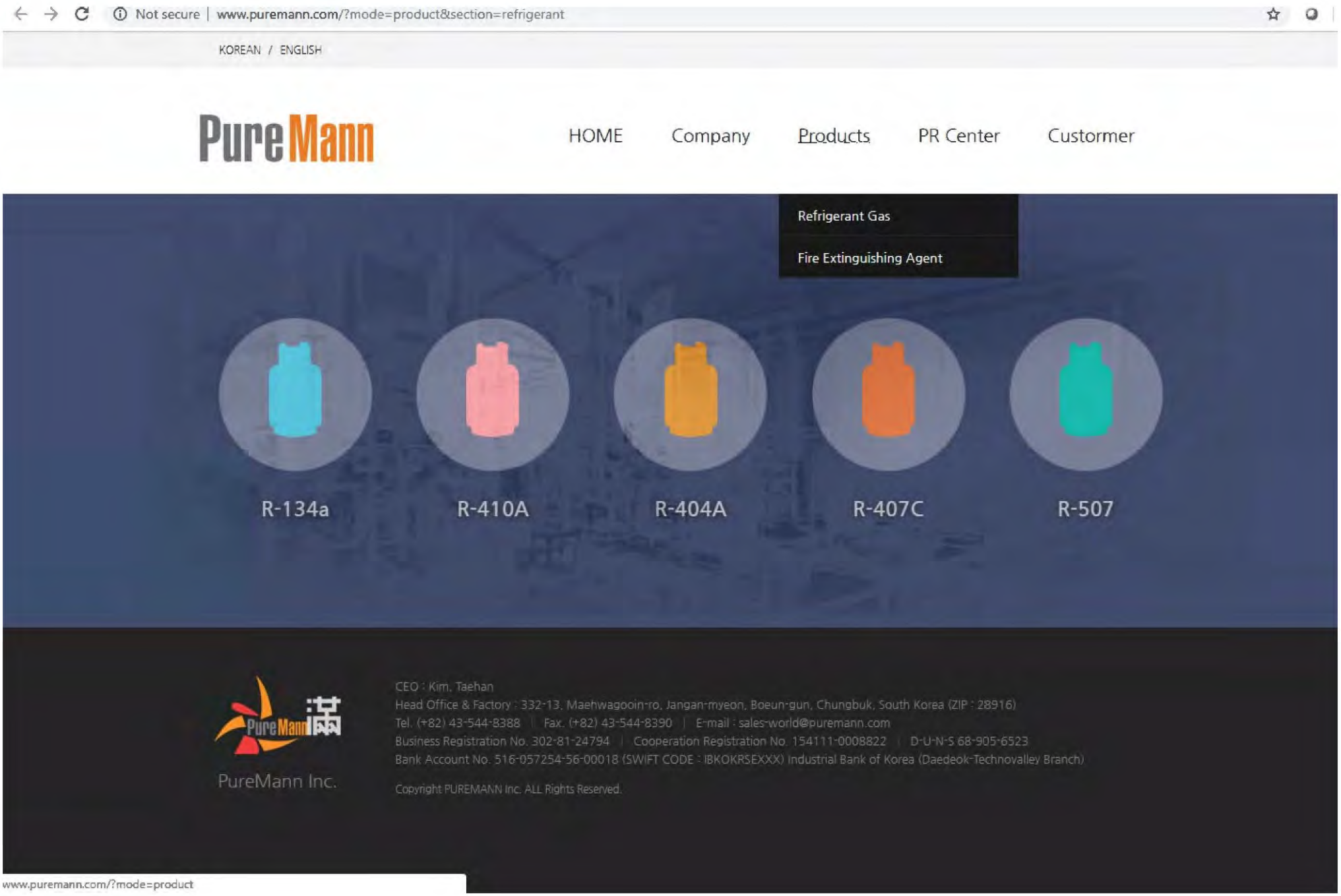


Exhibit 10

Attachment 2

AUTO and HVAC

INSIDE CONTAINER COMPLIES WITH PRESCRIBED SPECIFICATIONS
LE CONTENU DE L'EMBALLAGE EST CONFORME AUX NORMES PRESCRITES
ESTE CYLINDRO CUMPLEM CON LAS ESPECIFICACIONS REQUERIDAS POR LA LEY

30 LB. 13.6 kg

Processed in Korea from imported materials

PUREMANN INC.
4912 W KNOX ST. SUITE 100
TAMPA, FL 33634, U.S.A
Tel:(813) 884-1900

NON-RETURNABLE
EMBALLAGE PERDU
CYLINDER DESECHABLE

NON-REFILLABLE
NE PAS REUTILISER
NO RELLENABLE

DO NOT STORE ABOVE 125° F
NE PAS STOCKER A PLUS DE 52° C
NO ALMACENARLO SOBRE 52° C

Exhibit 11

Attachment 2

Use Your 2% BIG CARD REBATE
MENARDS®

[redacted]

KEEP YOUR RECEIPT
RETURN POLICY VARIES BY PRODUCT TYPE

Unless noted below allowable returns for items on this receipt will be in the form of an in store credit voucher if the return is done after 10/19/18

If you have questions regarding the charges on your receipt, please email us at:
YORKfrontend@menards.com

[redacted]

Sale Transaction

AUTOMOTIVE AC REFRIGERAN		
2612772	6 @4.49	26.94
TOTAL		26.94
[redacted]		2.22
TOTAL SALE		29.16
[redacted]		29.16

Auth Code:06435D
Chip Inserted
a0000000031010
TC - 6d56915100d78242

TOTAL NUMBER OF ITEMS = 6

THE FOLLOWING REBATE RECEIPTS WERE PRINTED FOR THIS TRANSACTION:
4178

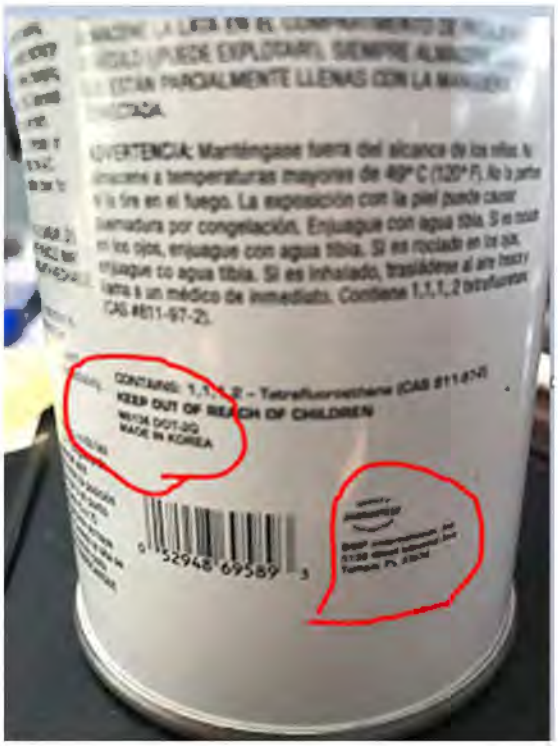
GUEST COPY

The Cardholder acknowledges receipt of goods/services in the total amount shown hereon and agrees to pay the card issuer according to its current terms.

THIS IS YOUR CREDIT CARD SALES SLIP
PLEASE RETAIN FOR YOUR RECORDS.

THANK YOU, YOUR CASHIER, [redacted]

53785 09 4401 07/21/18 07:31AM 3164



Attachment 2

THE HOME DEPOT
More saving. More doing.™

[redacted]

4102 00052 05182 03/15/19 04:55 PM
SELF CHECK OUT

052948695893 COOL MSTR R1 -A-
COOL MASTER R-134A 12OZ REFRIGERANT 9.76
204.68

SUBTOTAL	9.76
SALES TAX	0.58
TOTAL	$10.34
[redacted] MASTERCARD	USD$ 10.34
	TA
AUTH CODE 06462Z/9520823	CREDIT

AID A0000000041010

P.O.#/JOB NAME: [redacted]

[redacted]

4102 52 05182 03/15/2019 6995

RETURN POLICY DEFINITIONS

POLICY ID	DAYS	POLICY EXPIRES ON
A	90	06/13/2019
1		

DID WE NAIL IT?

Take a short survey for a chance TO WIN
A $5,000 HOME DEPOT GIFT CARD

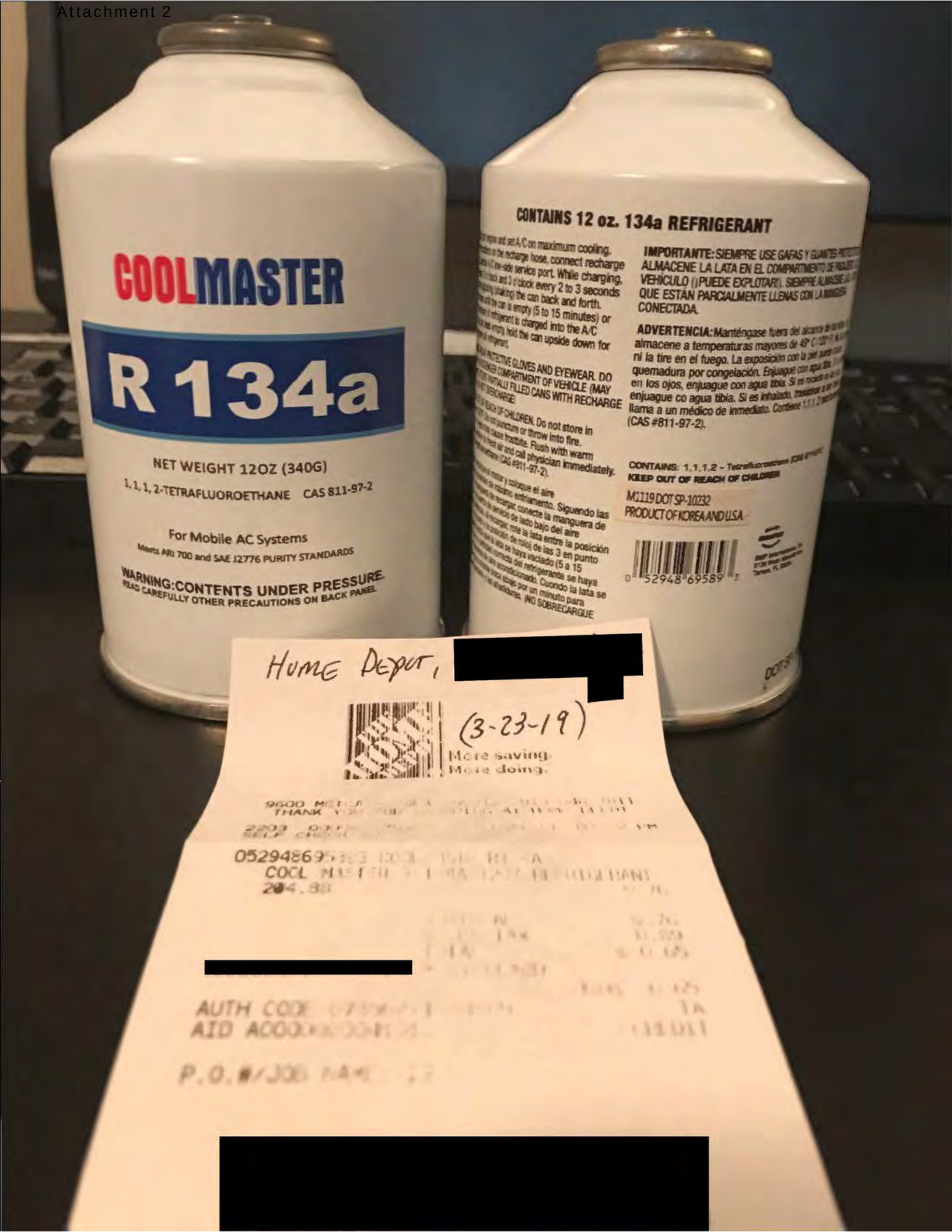
Online en español

www.homedepot.com/survey

User ID: H89 14755 10705
PASSWORD: 19165 10653

Entries must be completed within 14 days of purchase. Entrants must be 18 or

Attachment 2



HOME DEPOT, [redacted]

(3-23-19)

More saving.
More doing.

9600 ME[illegible]
THANK [illegible]
2203 [illegible]
HELP [illegible]

0529486[illegible]
COOL MAST[illegible]
204.88

[redacted]

AUTH CODE [illegible]
AID A000[illegible]

P.O.#/JOB NA[illegible]

[redacted]

Exhibit 12

Attachment 2

Update : Apr 2020 / Volume unit : MT

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Import from	China	-	3,912	5,736	5,670	6,138	5,702	5,218	6,894	7,476	5,684	1,842
	India	-	-	-	-	-	36	108	36	108	37	37
	US	213	48	362	84	14	15	14	15	18	18	1
Export to	China	3	-	-	-	-	-	-	0	-	0	-
	India	15	-	-	-	-	-	-	-	-	-	-
	US	-	-	3	-		36	51	277	1,271	1,182	393

Source: Korea Customs Service

Exhibit 13

Attachment 2

PureMann entries, 01/01/2019 - 07/31/2020

Date	Consignee Declared	Shipper Declared	Short Container Description	Country of Origin	Port of Arrival	Final Destination	Weight	Weight Unit	Quantity	Quantity Unit	Month	Consignee Declared Address	Shipper Address
7/22/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	22,801.00	K	1,340.00	CYL	7	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON,BOEUN, CHUNGBUK,
7/21/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	LONG BEACH,CA	NOT DECLARED	47,832.00	K	100,800.00	CAN	7	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON,BOEUN, CHUNGBUK,
7/17/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	69,408.00	K	4,080.00	CYL	7	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON,BOEUN, CHUNGBUK,
7/6/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	46,272.00	K	2,720.00	CYL	7	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON,BOEUN, CHUNGBUK,
7/6/2020	CROSS WORLD CORPORATION LIMITED	PUREMANN INC,	REFRIGERANT GAS	SOUTH KOREA	SEATTLE,WA	OMAHA, NE	19,663.00	KG	1,240.00	PKG	7	. THROUGH ITS AGENT244 FIFTH AVENUE 2ND FLOORNEW YORK NY 10001 U.S.A	. 332-13, MAEHWAGOOIN-RO. JANGAN-MYEO N, BOEUN-GUNCHUNGBUK, 28916, SOUTH
6/21/2020	CROSS WORLD CORPORATION LIMITED	PUREMANN INC,	REFRIGERANT GAS	SOUTH KOREA	SEATTLE,WA	OMAHA, NE	19,926.00	KG	40,320.00	PKG	6	. THROUGH ITS AGENT CROSS WORLD LLC2 44 FIFTH AVENUE 2ND FLOORNEW YORK	. 332-13, MAEHWAGOOIN-RO. JANGAN-MYEO N,BOEUN-GUN,CHUNGBUK, 28916, SOUTH
6/14/2020	CROSS WORLD CORPORATION LIMITED	PUREMANN INC,	REFRIGERANT GAS	SOUTH KOREA	SEATTLE,WA	OMAHA, NE	19,838.00	KG	1,160.00	PKG	6	. THROUGH ITS AGENT CROSS WORLD LLC2 44 FIFTH AVENUE 2ND FLOORNEW YORK	. 332-13, MAEHWAGOOIN-RO. JANGAN-MYEO N,BOEUN-GUN,CHUNGBUK, 28916, SOUTH
6/14/2020	CROSS WORLD CORPORATION LIMITED	PUREMANN INC,	REFRIGERANT GAS	SOUTH KOREA	SEATTLE,WA	OMAHA, NE	19,513.00	KG	1,320.00	PKG	6	. THROUGH ITS AGENT CROSS WORLD LLC2 44 FIFTH AVENUE 2ND FLOORNEW YORK	. 332-13, MAEHWAGOOIN-RO. JANGAN-MYEO N,BOEUN-GUN,CHUNGBUK, 28916, SOUTH
5/27/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	23,136.00	K	1,360.00	CYL	5	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON,BOEUN, CHUNGBUK,
5/21/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	23,136.00	K	1,360.00	CYL	5	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
5/13/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	23,136.00	K	1,360.00	CYL	5	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
5/13/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	23,916.00	K	50,400.00	CAN	5	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
4/24/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	41,191.00	K	2,420.00	CYL	4	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON
4/12/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	18,000.00	K	1.00	TNK	4	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
4/12/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	18,000.00	K	1.00	TNK	4	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
4/12/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	18,000.00	K	1.00	TNK	4	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
4/10/2020	ECOTEC MANUFACTURING INC	PUREMANN INC	R134A IN 17000KG ISOTANK UN NO. 3159 CLASS NO. 2.2	SOUTH KOREA	MIAMI,FL	NOT DECLARED	17,000.00	K	1.00	TNK	4	312 SW 7TH AVE OKEECHOBEE FL34974 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN GUN CHOONGBUK CHOONGBUK KR
3/30/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	23,916.00	K	49,920.00	CAN	3	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
3/23/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	18,000.00	K	1.00	TNK	3	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
3/22/2020	CROSS WORLD CORPORATION LIMITED	PUREMANN INC,	REFRIGERANT GAS	SOUTH KOREA	SEATTLE,WA	NOT DECLARED	19,887.00	KG	1,320.00	PKG	3	. THROUGH ITS AGENT CROSS WORLD LLC2 44 FIFTH AVENUE 2ND FLOORNEW YORK	. 332-13, MAEHWAGOOIN-RO. JANGAN-MYEO N,BOEUN-GUN,CHUNGBUK, 28916, SOUTH
3/22/2020	CROSS WORLD CORPORATION LIMITED	PUREMANN INC,	REFRIGERANT GAS REFRIGERANT GAS REFRIGERANT GAS	SOUTH KOREA	SEATTLE,WA	NOT DECLARED	62,358.00	KG	3,960.00	PKG	3	. THROUGH ITS AGENT CROSS WORLD LLC2 44 FIFTH AVENUE 2ND FLOORNEW YORK	. 332-13, MAEHWAGOOIN-RO. JANGAN-MYEO N,BOEUN-GUN,CHUNGBUK, 28916, SOUTH
3/2/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	36,000.00	K	2.00	TNK	3	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
3/2/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	36,000.00	K	2.00	TNK	3	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
2/2/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	36,000.00	K	2.00	TNK	2	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
1/26/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	36,000.00	K	2.00	TNK	1	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
1/17/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	23,916.00	K	49,920.00	CAN	1	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
1/12/2020	ECOTEC MANUFACTURING INC	PUREMANN INC	R134A IN 17000KG ISOTANK	SOUTH KOREA	MIAMI,FL	NOT DECLARED	17,000.00	K	1.00	TNK	1	312 SW 7TH AVE OKEECHOBEE FL34974 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN GUN CHOONGBUK 28916 SOUTH KOREA
1/10/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	36,000.00	K	2.00	TNK	1	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
1/3/2020	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	36,000.00	K	2.00	TNK	1	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
12/14/2019	ECOTEC MANUFACTURING INC	PUREMANN INC	R134A IN 17000KG ISOTANK	SOUTH KOREA	MIAMI,FL	NOT DECLARED	17,000.00	K	1.00	TNK	12	312 SW 7TH AVE OKEECHOBEE FL34974 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN CHUNGBUK CHUNGBUK KR
10/24/2019	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159 REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	TAMPA,FL	NOT DECLARED	46,512.00	K	2,720.00	CYL	10	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
10/5/2019	ECOTEC MANUFACTURE INC	PUREMANN INC	R134A IN 17000KG ISOTANK CLASS 2.2 UN 3159	SOUTH KOREA	MIAMI,FL	NOT DECLARED	17,000.00	K	1.00	TNK	10	312 SW 7TH AVE OKEECHOBEEFL34974 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN GUN CHOONGBUK KR
10/1/2019	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R134A CLASS2.2 UN NO3159	SOUTH KOREA	LONG BEACH,CA	NOT DECLARED	23,256.00	K	1,360.00	CYL	10	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
10/1/2019	PUREMANN INC.	PUREMANN INC,	REFRIGERANT GAS R-134A CLASS2.2 UN NO3159 E . REFRIGERANT GAS R-134A CLASS2.2 UN NO3159 E . REFRIGERANT GAS R-134A CLASS2.2 UN NO3159 E .	SOUTH KOREA	LONG BEACH,CA	NOT DECLARED	54,000.00	K	3.00	TNK	10	4912 W KNOX ST. SUITE 100	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK,
9/4/2019	PUREMANN INC	PUREMANN INC	REFRIGERANT GAS R-134A CLASS2.2 UN NO3159 E . REFRIGERANT GAS R-134A CLASS2.2 UN NO3159 E .	SOUTH KOREA	TAMPA,FL	NOT DECLARED	36,000.00	K	2.00	TNK	9	4912 W KNOX ST. SUITE 100 TAMPA, FL 33634, U.S.A	332-13, MAEHWAGOOIN-RO, JANGANMYEON BOEUN, CHUNGBUK
9/4/2019	ECOTEC MANUFACTURING INC	PUREMANNINC	R134A IN 17000KG ISOTANK UN NO. 3159 CLASS NO. 2.2	SOUTH KOREA	MIAMI,FL	NOT DECLARED	17,000.00	K	1.00	TNK	9	312 SW 7TH AVE OKEECHOBEE FL34974 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN CHUNGBUK CHUNGBUKKR
5/22/2019	MONDY GLOBAL, INC.	PUREMANN INC	1340 CYLINDERS OF R410A IN 25LB DOT 39 DISPOS ABLE CYLINDER 1340 CYLINDERS OF R410A IN 25LB DOT 39 DISPOS ABLE CYLINDER	SOUTH KOREA	LOS ANGELES,CA	NOT DECLARED	41,916.00	KG	2,680.00	CYL	5	12118 VALLIANT SUITE206 SAN ANTONIO TEXAS 78216 USA	332-13, MAEHWAGOOIN-RO,JANGAN-MYEON BOEUN, CHUNGBUK, SOUTH KOREA
5/18/2019	MONDY GLOBAL INC	PUREMANN INC	R410A IN 25LB DOT 39 DISPOSABLE CYLINDER EMP TY CARTONS R410A IN 25LB DOT 39 DISPOSABLE CYLINDER EMP TY CARTONS	SOUTH KOREA	HOUSTON,TX	NOT DECLARED	47,566.00	K	3,042.00	PKG	5	12118 VALLIANT SUITE 206 SAN ANTONIO TX78216 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN CHUNGBUK KR
4/26/2019	MONDY GLOBAL INC	PUREMANN INC	4560 CYLINDERS OF R410A IN 25LB DOT 39 DISPOS ABLE CYLINDER 4560 CYLINDERS OF R410AIN 25LB DOT 39 DISPOS ABLE CYLINDER 4560 CYLINDERS OF R410A IN 25LB DOT 39 DISPOS ABLE CYLINDER	SOUTH KOREA	HOUSTON,TX	NOT DECLARED	78,888.00	K	4,560.00	CYL	4	12118 VALLIANT SUITE 206 SAN ANTONIO TX78216 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN CHUNGBUK KR
3/27/2019	ECOTEC MANUFACTURING INC	PUREMANN INC	R134A IN 17000KG ISOTANK UN NO. 3159 CLASS NO. 2.2	SOUTH KOREA	MIAMI,FL	NOT DECLARED	25,900.00	K	1.00	TNK	3	312 SW 7TH AVE OKEECHOBEE FL34974 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN CHUNGBUK SOUTH KOREA CHUNGBUK KR
3/18/2019	ECOTEC MANUFACTURING INC	PUREMANN INC	R134A IN 17000KG ISOTANK UN NO. 3159 CLASS NO. 2.2	SOUTH KOREA	MIAMI,FL	NOT DECLARED	25,900.00	K	1.00	TNK	3	312 SW 7TH AVE OKEECHOBEE FL34974 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN CHUNGBUK SOUTH KOREA CHUNGBUK KR
1/27/2019	PUREMANN INC,	PUREMANN INC,	REFRIGERANT GAS R-134A PACKED IN 12OZ (340G) DOT CAN -49,920 CANS (4,160 BOXES)/ 40FT. HQ REFRIGERANT GAS R-134A PACKED IN 12OZ (340G) DOT CAN -49,920 CANS (4,160 BOXES)/ 40FT. HQ REFRIGERANT GAS R-13 [MORE]	SOUTH KOREA	TAMPA,FL	NOT DECLARED	119,802.00	LB	99,840.00	PKG	1	4912 W. KNOX ST. SUITE 100 TAMPA, FL 33634, U.S.A TEL. (813) 884-1900	332-13, MAEHWAGOOIN-RO,JANGAN-MYEO, BOEUN, CHUNGBUK, SOUTH KOREA TEL. +82.43.544.8388 /
1/22/2019	MONDY GLOBAL INC	PUREMANN INC	R410A IN 25LB DOT 39 DISPOSABLE CYLINDER	SOUTH KOREA	HOUSTON,TX	NOT DECLARED	26,296.00	K	1,520.00	CYL	1	12118 VALLIANT SUITE 206 SANANTONIO TX78216 US	332 13 MAEHWAGOOIN RO JANGAN MYEON BOEUN CHUNGBUK KR

Source: Descartes Datamyne

Exhibit 14

PureMann

For your Safety, Property and Nature

UL & FM approved fire extinguishing agents

Attachment 2

Various applications in our life

Our products can be applied to all areas in our life

대표이사 : 이[illegible] 김태[illegible]
본사 및 공장 : 충북 보은군 장안면 [illegible]
전화 : 043-544-8388/8389 / 팩스 : 043-544-8390
사업자등록번호 : 302-81-24794 / 법인등록번호 : 154111-000882 / 무역업고유번호 : 30729379 / 통신판매업신고 : 제2014-44-20076-30-2-00007
원화입금계좌번호 : 기업은행 516-057254-01-015 퓨어만(주)

Purified & Mixed Products in Korea

Various products of PureMann are being produced in Korea

For your Safety, Property and Nature

UL & FM approved fire extinguishing agents

Exhibit 15

Exhibit 15

I. U.S. importers identified by Commerce in affirmative anti-circumvention inquiries completed in 2020

***Reblended R-421A* anticircumvention determination**:

- L.M. Supply, Inc.,
- Cool Master U.S.A., L.L.C.,
- BMP USA, Inc.
- iGas USA Inc.

***Indian Blends* anticircumvention determination**:

- *Altair Partners, LP,
- Dynatemp International,
- GFL Americas, LLC,
- *Kivlan & Company, Inc., and
- *Mondy Global, Inc.

***Unfinished Blends* anticircumvention determination**:

- *Weitron, Inc.

II. U.S. importers with histories of transshipment or non-compliance with country of origin requirements that merit consultation with CBP before awarding consumption allowances

- L.M. Supply, Inc.
- *iCool Inc.,
- Puremann, Inc., and
- Carquest Corporation

* Indicates the importer is listed in Table 4 of the EPA Production and Consumption Tables (April 2021).