BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In re: Phasedown of Hydrofluorocarbons: Restrictions on the Use of Certain Hydrofluorocarbons Under the American Innovation and Manufacturing Act	)	Docket No. EPA-HQ-OAR-2021-0643

PETITION FOR RECONSIDERATION

Pursuant to Section 307(d)(7)(B) of the Clean Air Act ("CAA"),[1] The Chemours Company ("Chemours") hereby petitions the Administrator of the Environmental Protection Agency ("EPA" or "Agency") to reconsider portions of the final rule entitled *Phasedown of Hydrofluorocarbons: Restrictions on the Use of Certain Hydrofluorocarbons Under the American Innovation and Manufacturing Act of 2020*, 88 Fed. Reg. 73,098 (Oct. 24, 2023) ("Technology Transitions Rule"). As promulgated, the Technology Transitions Rule included a new concept that allows the continued manufacture and importation of "specified components" of equipment used in the residential and light commercial air conditioning and heat pump ("RLCACHP") subsector[2] after January 1, 2025,[3] that have a global warming potential ("GWP") of 700 or greater. The inclusion of this concept created a significant "loophole" in the Technology Transitions Rule that undermines the intended phasedown in the production and consumption of hydrofluorocarbons ("HFCs")—potent greenhouse gases—in the United States required by the American Innovation and Manufacturing Act ("AIM Act").[4] It also results in a disparity in the treatment of domestic versus non-U.S. companies, because U.S. manufacturers and installers[5] of "specified components" will need to utilize HFC refrigerants for which an HFC production and/or consumption allowance has been expended, while non-U.S. manufacturers of

[1] 42 U.S.C. §7607(d)(7)(B).

[2] For purposes of this petition, the acronym "RLCACHP" is intended to apply to "residential and light commercial air conditioning and heat pump" products as referenced in 40 C.F.R. §84.54(a)(1). We recognize that in the proposed and final rule at issue, EPA utilized the RACHP acronym to mean "Refrigeration, Air Conditioning, and Heat Pumps" and described such as a "sector." *See, e.g.*, 88 Fed. Reg. at 73,099. But EPA's final rule also referenced "RACHP subsectors." *See, e.g.*, 88 Fed. Reg. 73,135. In any event, this petition for reconsideration is *not* directed at refrigeration products, but is limited to residential and light commercial air conditioning and heat pumps and thus uses the acronym "RLCACHP" to refer to this specific part of the RACHP sector.

[3] On December 26, 2023, an interim final rule was published in the Federal Register that "allows one additional year, until January 1, 2026, solely for the installation of new residential and light commercial air conditioning and heat pump systems using components manufactured or imported prior to January 1, 2025." *Phasedown of Hydrofluorocarbons: Technology Transitions Program Residential and Light Commercial Air Conditioning and Heat Pump Subsector*, 88 Fed. Reg. 88825 (Dec. 26, 2023).

[4] 42 U.S.C. §7675.

[5] When a specified component is manufactured in the United States, it will use HFCs for which allowances have been expended whether it is charged in a factory or in the field when installed.

"specified components" imported into this country after being charged will not be subject to the same requirement.[6]

Chemours supported enactment of the AIM Act and ratification of the Kigali Amendment, the international agreement that calls for a reduction in the production and consumption of HFCs, by the United States. Chemours also supported EPA's efforts over the last three years to implement the AIM Act's required phasedown of HFCs through the 2021 Framework Rule[7] and the HFC Allowance Rule governing the period from 2024 to 2028.[8] And Chemours supports a large majority of the newly promulgated regulations to address technology transition petitions that the Agency has received and granted.[9] But provisions in the final Technology Transitions Rule created an entirely new definition of "specified component"[10] that the Agency neither included nor even mentioned as a possibility in the proposed rule.[11]

This results in an exemption for "specified components" from limits on GWP that are otherwise applicable to refrigerants used in RLCACHP equipment. Such a result is contrary to both the AIM Act[12] and the goal of achieving a transition away from the use of high-GWP HFCs through the step-wise phasedown of HFCs provided in the AIM Act section 103(e)(2) and provisions in AIM Act section 103(i) that are intended to restrict the production or consumption of regulated substances in a sector or subsector.

As described in more detail below, the objections raised in this petition were impracticable to raise during the time period that EPA allowed for public comment on the proposed rule, primarily because EPA gave the public no notice that it was considering adopting such a definition of "specified components" or that the Agency intended to limit the scope of its restrictions on the use of HFCs on the basis of this new definition. Because Chemours' objections go to the lawfulness of the final rule as promulgated, they are also of central relevance to the outcome of the rule and thus satisfy the criteria and requirements of CAA section 307(d)(7)(B) regarding mandatory reconsideration. EPA should therefore "convene a proceeding for reconsideration of the rule"[13] and ultimately should abandon its unlawful definition of "specified component" as it impacts the use of refrigerants in the RLCACHP subsector.

BACKGROUND

On October 23, 2023, EPA promulgated a final rule to implement AIM Act provisions regarding technology transitions in response to petitions that had previously been filed and granted by the

[6] This occurs because of determinations EPA made in previous AIM Act rulemakings to only require the expenditure of allowances where HFCs are imported into the United States in bulk containers. *See* n.54, *infra*.

[7] *Phasedown of Hydrofluorocarbons: Establishing the Allowance Allocation and Trading Program Under the American Innovation and Manufacturing Act*, 86 Fed. Reg. 55,116 (Oct. 5. 2021).

[8] *Phasedown of Hydrofluorocarbons: Allowance Allocation Methodology for 2024 and Later Years*, 88 Fed. Reg. 46,836 (July 20, 2023).

[9] *See* https://www.epa.gov/climate-hfcs-reduction/petition-status-technology-transitions.

[10] 40 C.F.R. §84.52.

[11] *Phasedown of Hydrofluorocarbons: Restrictions on the Use of Certain Hydrofluorocarbons Under Subsection (i) the American Innovation and Manufacturing Act of 2020*, 87 Fed. Reg. 76,738 (Dec. 15, 2022).

[12] 42 U.S.C. §7675(i).

[13] 42 U.S.C. §7607(d)(7)(B).

Agency.[14] As finalized, this rule unlawfully allows the continued manufacture and importation of condensing units and other major parts of an air conditioning and heat pump systems that are charged with high-GWP refrigerants even though, at the same time, a person (be it a manufacturer, importer or other entity) is *precluded*, after January 1, 2025, from manufacturing or importing new RLCACHP equipment (classified as "products"[15]) using a refrigerant that has a GWP of over 700.[16]

This part of the final rule therefore facilitates the replacement of integral parts of older RLCACHP equipment, similar to the reconstruction of a major stationary source, without triggering requirements to utilize more environmentally-beneficial refrigerants. In effect, older, less-efficient RLCACHP equipment can be rebuilt from the inside out, allowing for an indefinite extension of the equipment's normal lifespan, with consequent adverse effects on the levels of atmospheric greenhouse gases ("GHGs").[17] This result is likely to perpetuate the use of older, less efficient RLCACHP equipment, using high-GWP refrigerants. It is contrary, therefore, not only to the AIM Act but to the Administration's broader policies aimed at reducing our nation's GHG emissions.

ISSUES MERITING RECONSIDERATION

I. Petitioners Lacked Any Meaningful Opportunity to Comment on the Final Rule's New Regulatory Definition, Even Though that Definition has a Major Impact on Implementation of the Final Rule

A. EPA Did Not Propose to Exempt a "Specified Component" from GWP Prohibitions

EPA neither included the final rule's definition of "specified component" in the proposed rule, nor otherwise indicated anywhere in the proposal that it intended to allow, or was considering allowing, an exemption from GWP prohibitions for such components. In fact, EPA proposed precisely the opposite. In the proposed Technology Transitions Rule,[18] the Agency proposed to define a "product" very broadly, *i.e.*, to mean "an item or category of items manufactured from raw or recycled materials which is used to perform a function or task."[19] And EPA additionally proposed that a "product" include not only "equipment" and "appliances" but also "components" and "subcomponents."[20] The final rule's "surprise switcheroo," as the D.C. Circuit has labeled such about-face changes in a final rule, is patently unlawful; as that court has held, "Whatever a

[14] 86 Fed. Reg. 57,141 (Oct. 14, 2021); 87 Fed. Reg. 60,158 (Oct. 4, 2022).

[15] A "product" is defined as "an item or category of items manufactured from raw or recycled materials which performs a function or task and is functional upon completion of manufacturing. The term includes, but is not limited to: appliances, foams, fully formulated polyols, self-contained fire suppression devices, aerosols, pressurized dispensers, and wipes." 40 C.F.R. §84.52.

[16] Note that "manufacture" means to complete the manufacturing and assembly process.

[17] In addition to exempting "specified components" used in RLCACHP from restrictions on the use of regulated substances with a GWP or 700 or greater (40 C.F.R. §84.54(a)(1)), the final rule also provided a specific exemption for "components that use, or are intended to use, any regulated substance." *Id.* §84.56(b). It should be noted here that EPA did not separately define what is considered to be a "component" versus a "specified component."

[18] 87 Fed. Reg. 76,738 (Dec. 15, 2022).

[19] *Id*. at 76,809; proposed 40 C.F.R. §84.52.

[20] *Id*. at 76,809.

'logical outgrowth' of [an agency's] proposal may include, it certainly does not include the Agency's decision to repudiate its proposed [position] and adopt its inverse."[21]

EPA also proposed that, effective January 1, 2025, no person "may manufacture or import any *product* that uses or is intended to use a regulated substance or blend containing a regulated substance in §85.56 (a), (c), (d), and (e)."[22] Pursuant to §85.56(a)(24) as proposed, products in the RLCACHP subsector were subject to prohibitions in 40 C.F.R. §85.54 (a) and (b) "when using or intended to use a regulated substance or blend containing a regulated substance with a global warming potential of 700 or greater, except for variable refrigerant flow air-conditioning systems."[23] In other words, EPA proposed that residential and light commercial RLCACHP products, *including components and subcomponents of such products*, could not be manufactured or imported into the United States after January 1, 2025, if they used or intended to use a regulated substance (refrigerant) with a GWP of 700 or higher.

EPA further proposed that the sale or distribution of residential and light commercial RLCACHP equipment containing regulated substances of 700 or greater GWP was prohibited after January 1, 2026.[24] This latter prohibition also extended to other actions in the chain of commerce, specifically actions to "make available to sell or distribute, purchase or receive, attempt to purchase or receive, or export."[25] In other words, EPA proposed to draw a hard line in the sand and insist that residential and light commercial RLCACHP products (and their components and subcomponents) be subject to prohibitions on manufacture and import by January 1, 2025, and that limits on the "sell through" of such products (and their components and subcomponents) apply as of January 1, 2026.

Nowhere in the proposed rule did EPA discuss or define the concept of a "specified component" of a product, much less indicate that if part of a product (a component or subcomponent) was defined as such, it would be exempted from the prohibitions on manufacture, import, sale, distribution and other actions that otherwise applied to residential and light duty RLCACHP products. In fact, the proposed rule provided a detailed background discussion of the different types of residential and light commercial air conditioning and heat pumps, including central air conditioners, multi-split systems, rooftop and window units, and water-source and ground-source heat pumps, as well as variable refrigerant flow/variable refrigerant volume systems.[26] And after discussing these systems, EPA stated that "[a]ll of these types of air-conditioning equipment would be subject to the restrictions on the use of HFCs under this proposal, if finalized."[27] EPA did not qualify this statement to indicate that the restrictions on high-GWP HFCs would not apply to "specified components" or "components" or "subcomponents" used in such equipment or that EPA was considering alternatives to its proposed treatment of these items. EPA also did not solicit comment on any issue related to the application of restrictions on GWP to products

[21] *Env't Integrity Project v. EPA*, 425 F.3d 992, 996, 998 (D.C. Cir. 2005).

[22] Proposed 40 C.F.R. §85.54(a); 87 Fed. Reg. at 76,809 (emphasis added).

[23] 87 Fed. Reg. at 76,811.

[24] Proposed 40 C.F.R. §84.54(b); 87 Fed. Reg. at 76,809. Similar to manufacture or export, the proposed prohibition regarding sale and distribution applied to a "product."

[25] *Id.*

[26] 87 Fed. Reg. at 76,787-76,788.

[27] *Id.* at 76,788.

versus components or subcomponents of products.[28] Thus, commenters could not have been on notice that EPA would, in fact, create an exemption for "specified components" to the proposed restrictions on the GWP of HFCs used in such products.[29]

The exemption for "specified components" also cannot be considered to be a "logical outgrowth" of the proposed rule because the proposed rule indicated that EPA would regulate "components" and "subcomponents" of RLCACHP systems in the same manner as RLCACHP products. And EPA did not discuss how or why such components would not be treated in the same manner as products. Applicable case law on this matter is clear:

> A final rule qualifies as a logical outgrowth "if interested parties 'should have anticipated' that the change was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period." *Ne. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936, 952 (D.C. Cir. 2004) (citations omitted). By contrast, a final rule fails the logical outgrowth test and thus violates the APA's notice requirement where "interested parties would have had to 'divine [the agency's] unspoken thoughts,' because the final rule was surprisingly distant from the proposed rule.:" *Int'l Union, United Mine Workers of Am. v. Mine Safety Health Admin.*, 407 F.3d 1250, 1259-60 (D.C. Cir. 2005) (internal citations omitted).[30]

The definition of a "specified component" and its impact on the GWP limitations applicable to components and subcomponents utilized within RLCACHP equipment starting on January 1, 2025, would have required commenters to "divine" EPA's unspoken thoughts because there was nothing included within the proposed rule or administrative record that would indicate the Agency was considering taking such action. The final rule's definition is thus precisely the type of "surprise switcheroo" that the D.C. Circuit has previously determined is unlawful.[31]

As detailed below, EPA not only did not provide any notice of this definition, but the Agency did not discuss its purported rationale for including this new definition and associated exemption in the final rule. Remarkably, in rejecting a commenter's request for an alternative definition of "component" (*i.e.*, that such include "any and all equipment required for the refrigeration system to function properly"),[32] EPA declined to adopt this definition on the basis that "it broadly describes how a component functions and the concept *merits public input* depending on the policy goals."[33] Yet EPA did not apply this same perspective and consideration when, on its own volition, the Agency created a new definition affecting how GWP limits would apply to products versus components.

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[28] EPA, however, did specifically request comments on other aspects of the proposed rule.

[29] EPA's Response to Comment document only mentions "specified components" in response to unrelated comments the agency received concerning labeling and reporting requirements and the treatment of reclaimers. *See* RTC at 423, 431, and 440.

[30] *CSX Transportation, Inc. v. Surface Transportation Board*, 584 F.3d 1076, 1080 (D.C. Cir. 2009).

[31] *Envtl. Integrity Project*, 425 F.3d at 996.

[32] 88 Fed. Reg. at 73,112.

[33] *Id*. (Emphasis added).

EPA also cannot claim that there was any "implicit" notice that the Agency would address Technology Transition petitions in the same manner as petitions submitted pursuant to EPA's Significant New Alternatives Program ("SNAP"). While EPA noted that some assessments under the SNAP may be relevant to the consideration of petitions under AIM Act subsection 103(i) (*e.g.*, with respect to safety and the availability of substitutes),[34] the statutory language for the programs is considerably different and was approved by different Congresses, separated by 30 years in time.

Specifically, in promulgating rules pursuant to SNAP, EPA is to identify substitute substances that "reduce[ ] the overall risk to human health and the environment" which are "currently or potentially available."[35] In contrast, the AIM Act requires that EPA consider "overall economic costs and environmental impacts, as compared to historical trends," as well as the "remaining phase-down period for regulated substances."[36] And EPA must further assess the best available data and consider at least eight additional statutory factors in its analysis.[37] Thus, simply because EPA may have adopted a certain regulatory approach under the entirely separate SNAP program did not and does not serve to place commenters on notice that it might consider or adopt the same or similar approach under the AIM Act. This is further supported by noting that the final rule is the *first time* that EPA has interpreted or implemented AIM Act subsection (i) through rulemaking.

B. EPA Did Not Provide Any Notice the Final Rule Would Allow "Specified Components" to be Used to Service or Repair Existing or Future RLCACHP Equipment

In explaining its decision to exempt "specified components" from otherwise applicable limitations on GWPs, EPA cited comments the Agency had received which claimed that the proposed definition of a "product" was too broad and could be interpreted to encompass the manufacture and sale of parts for normal service and warranty.[38] EPA stated that it "did not intend to restrict the manufacture, import, and sale of components in the same manner as completed products or the installation of systems."[39] As a result, EPA stated it was "clarifying" the definition of a "product" to remove mention of "components" and "subcomponents."[40]

While EPA may certainly respond to comments that it receives regarding a proposed rule, EPA did not, in any way, discuss issues concerning "replacement parts intended for repairs"[41] in the proposed rule. A word search of the proposed rule reveals no mention of "replacement parts" at all. And to the extent that EPA discussed "replacement" in four places in the proposed rule, none was in the context of creating a wide-ranging exemption for major replacement parts like compressors and evaporators.[42]

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[34] See 87 Fed. Reg. at 76,762.
[35] 42 U.S.C. §7671k(c).
[36] 42 U.S.C. §7675(i)(4)(C)-(D).
[37] *Id.* at §7675(i)(4)(A)-(B).
[38] 88 Fed. Reg. at 73,111
[39] *Id.*
[40] 88 Fed. Reg. at 73,112.
[41] *Id.* at 73,111.
[42] *See* 88 Fed. Reg. at 76,751 n.49; 76,778 n. 89; 77,788 nn. 122, 123.

The proposed rule also mentioned the "service" of existing equipment only in the context of an exemption provided for equipment manufactured prior to the date of enactment of the AIM Act.[43] This exemption, moreover, was statutory and limited to equipment in existence before December 27, 2020.[44] Thus, it did not encompass the "specified components" that EPA exempts from GWP prohibitions on a going-forward basis. Other mentions of "servicing" equipment in the proposed rule occur only in the context of: regulatory analysis of the effect of the rule on consumer costs and small businesses;[45] other provisions having nothing to do with exempting specified components from restrictions on GWP when they are used to repair or service existing equipment; or equipment that may be manufactured prior to the imposition of GWP restrictions.

With regard to "warranty," there is no mention at all in the proposed rule of the need to exempt certain components on the basis that such may fall under warranty periods. Nor is there any discussion or technical support for this type of exemption, based on private sector warranty provisions, in the docket.

Without discussing "replacement parts," "service," or "warranty" for components used in RLCACHP in the proposed rule, it is axiomatic that EPA did not provide any rationale to explain why or how it was interpreting the AIM Act to allow for the exemption included in the final rule. EPA did not discuss the exemption, provide any proposed regulatory provisions to implement the exemption, or describe any available regulatory alternatives to the final rule's carte blanche exclusion of "specified components" from the GWP prohibitions that otherwise apply to "products." In this situation, commenters had no notice that EPA intended to establish such an exemption in this rule or whether the Agency might consider such issues in a subsequent rulemaking. Commenters are not required to engage in gross speculation regarding all possible outcomes of a rulemaking; rather, commenters must be able to anticipate the content of a final rule from the notice given by the Agency.[46]

In the final rule, EPA's attempted to justify its new definition for "specified component" on the basis that it would allow the regulations to "better describe how restrictions apply to different equipment types."[47] But therein lies the rub. The final rule did not "better describe" these restrictions; instead, it included an entirely *new exemption* from such restrictions out of whole cloth citing its authority in the AIM Act. Thus, the Agency was not providing a better description of what it had proposed; it was introducing an entirely new concept and exemption *for the first time in the final rule*. The regulatory exemption came *before* any explanation or rationale therefore. In such a situation, the proper course for EPA is to issue a supplemental proposed rule or engage in additional rulemaking after it finalizes a rule that does not include new definitions that are central to the operation of the rule.

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[43] See discussion of "Would restrictions apply to existing equipment?" 88 Fed. Reg. at 76,760.

[44] 42 U.S.C. §7675(i)(7)(B).

[45] 88 Fed. Reg. at 76,764.

[46] *Ne. Md. Waste Disposal Authority v. EPA*, 358 F.3d 936, 951-52 (D.C. Cir. 2004).

[47] *Id*. In addition, EPA asserted that this definition would align with how EPA was distinguishing as between a "new" system subject to GWP limits and modifications to existing systems, albeit EPA did not define either "new" or "modified" in the final regulations.

In this petition, Chemours is not suggesting that normal servicing and repair of existing equipment not be allowed. But the distinction between normal servicing and repair, and rebuilding and reconstructing existing systems in the RLCACHP subsector using refrigerants with much higher GWPs (such that they far outlive their normal useful lives) should have been discussed in the proposed rule and subject to public notice and the opportunity for comment. This is demonstrably not the case with regard to the final rule and its provisions on specified components.

C. Other Unanticipated Changes Facilitated EPA's Unnoticed Approach to Specified Components

At the same time that EPA was adding new definitions in the final rule that had not been proposed, the Agency was also removing important definitions that it had proposed. Again, EPA certainly has the ability to decide not to finalize regulatory language that it proposes and to respond to comments that it receives on such language. But in the case of the Technology Transitions Rule, the removal of the definition of "regulated product" also served to alter the regulatory landscape affecting the prohibitions that apply to the GWP of regulated substances under the AIM Act.

Specifically, with little explanation other than it felt the definition was too expansive, EPA determined in the final rule that it would not adopt a definition of a "regulated product."[48] In the proposed rule, the concept of a "regulated product" was used in to distinguish when the "use" of a product was and was not regulated. Thus, this definition was central to the operation of the rule as well as the operation of any exemptions. For example, in the proposed rule EPA stated that:

> Under the proposed definition of ''use'' EPA would be exercising its authority under subsection (i) to cover a broad chain of activities associated with *regulated products*. In this rule, EPA's proposed restrictions on that broad chain of activities are designed to apply only at certain points in this chain, consistent with the direction that EPA ''may by rule restrict, fully, partially, or on a graduated schedule.'' With respect to the specific sector and subsector restrictions proposed in this document, *EPA proposes to adopt a uniform understanding of when the restrictions would begin to apply and explains in this section how the commencement of EPA's restrictions would apply to both regulated products manufactured in the United States and imported regulated products*.[49]
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> [T]he use restrictions in this proposed rule are intended only to apply to the manufacture and import of *regulated products* and the subsequent sale, distribution, export, and offer for sale or distribution of those products.[50]

In the final rule, EPA abandoned the definition of a "regulated product," while at the same time creating a new definition which markedly constrains the prohibitions EPA proposed for

[48] *Id*.
[49] *Id*.
[50] *Id.*

refrigerants utilized in RLCACHP equipment. Eliminating the use of the term "regulated product" essentially facilitated this 180-degree change in position—a classic, unlawful "surprise switcheroo"—with regard to the regulation of "components" and "subcomponents" of products. But those commenting on the proposed rule had no ability to discern this major change in regulatory approach would occur in the final rule.

II. The Definition of "Specified Component" and Exemption of Such Components from GWP Prohibitions Is of Central Relevance to the Final Rule

In assessing a petition for reconsideration, EPA must determine "whether the objections provide substantial support for the argument that the regulation should be revised."[51] The objections raised in this petition go to the heart of what specific products, components, and subcomponents are subject to the requirement to use refrigerants with lower GWPs after specified dates; in this instance, RLCACHP equipment after January 1, 2025. These requirements are central to the operation of the final rule in a major sector regulated by the AIM Act and define how the Act's provisions either prohibit or allow high-GWP refrigerants to be used in future years. As such, the regulatory provisions for which Chemours is seeking reconsideration are of "central relevance" to the rulemaking.[52]

A. Provisions Regarding Specified Components Will Create a Regulatory Loophole That Will Delay the Transition to More Efficient, Lower GWP RLCACHP Equipment

Condensers, evaporators, and compressors are fundamental to the air-conditioning and refrigeration cycle. They are the main components of RLCACHP equipment. Along with the refrigerant that is used, these components allow various products and systems to cool ambient air. Thus, compressors, evaporators, and compressors are comparable to an engine in a motor vehicle or utility boiler or generator that is used in an electric power plant. Without these components, air conditioners and heat pumps simply wouldn't work.

Allowing for unlimited replacement of condensers, evaporators, and compressors *without* subjecting such components to the prohibitions on high-GWP refrigerants that apply to newly manufactured and imported RLCACHP products results in a powerful incentive to extend the useful life of existing, high-GWP systems beyond their designed lifetimes. Because the AIM Act does not regulate individual HFCs with regard their chemical formula, but rather on the basis of their relative exchange value, or GWP,[53] higher-GWP refrigerants can continue to be produced throughout the phasedown of production and consumption of HFCs (*i.e.*, at least through 2038 and most likely, beyond). EPA's final rule effectively helps to create a loophole for these higher-GWP refrigerants, frustrating both the purpose of the AIM Act and this Administration's policies directed at aggressively reducing emissions contributing to climate change.

As promulgated, the final rule will allow not only normal repair of RLCACHP equipment, but also allow replacement of major components of such systems, effectively allowing the rebuilding

[51] *Chesapeake Climate Action Network v. EPA*, 952 F.3d, 310, 322 (D.C. Cir. 2020).

[52] Clean Air Act section 307 applies to this AIM Act rulemaking through the AIM Act's provisions describing their relationship to other law. 42 U.S.C. §7675(k).

[53] 42 U.S.C. §7675(c).

and reconstruction of existing units to allow them to operate for *many* additional years beyond when they might otherwise be replaced. In the meantime, energy-efficiency improvements of new RLCACHP equipment will not be realized and higher-GWP refrigerants may be emitted during servicing and other events.

Another important aspect of EPA's final rule is the blatant disparity in the treatment of U.S. versus foreign manufacturers. Specifically, because imported products do not require the expenditure of HFC consumption allowances,[54] the final rule will create an incentive for RLCACHP "specified components" (like compressors) to be manufactured outside of the United States and then imported into the country for use. In effect, for purposes of the AIM Act, foreign-produced compressors charged with HFCs may be imported "duty-free" by not requiring the expenditure of an HFC consumption allowance that would otherwise be needed if the compressor was manufactured and charged within the United States.[55] Restrictions on the importation of RLCACHP equipment only reference the importation of "products" and do not prohibit the importation of "specified components" containing HFCs with a GWP above 700.[56] This is a clear disparity in treatment as between differently-situated manufacturers and is contrary to the express purposes of the AIM Act regarding domestic manufacturing.

In brief, EPA's decision to finalize a new definition for "specified component" without any public notice of this definition or its impact on other AIM Act regulations promulgated pursuant to subsection (i) clearly impacts the implementation of new prohibitions on the use of high-GWP refrigerants with a substantial and long-lasting impact on the required phasedown in the use of HFCs in the United States, thus satisfying the requirements of Clean Air Act section 307(d)(7)(B) that an objection be of central relevance to the outcome of a rule before reconsideration is required.

B. The Final Rule is Impermissibly Vague with Regard to How it Will be Implemented

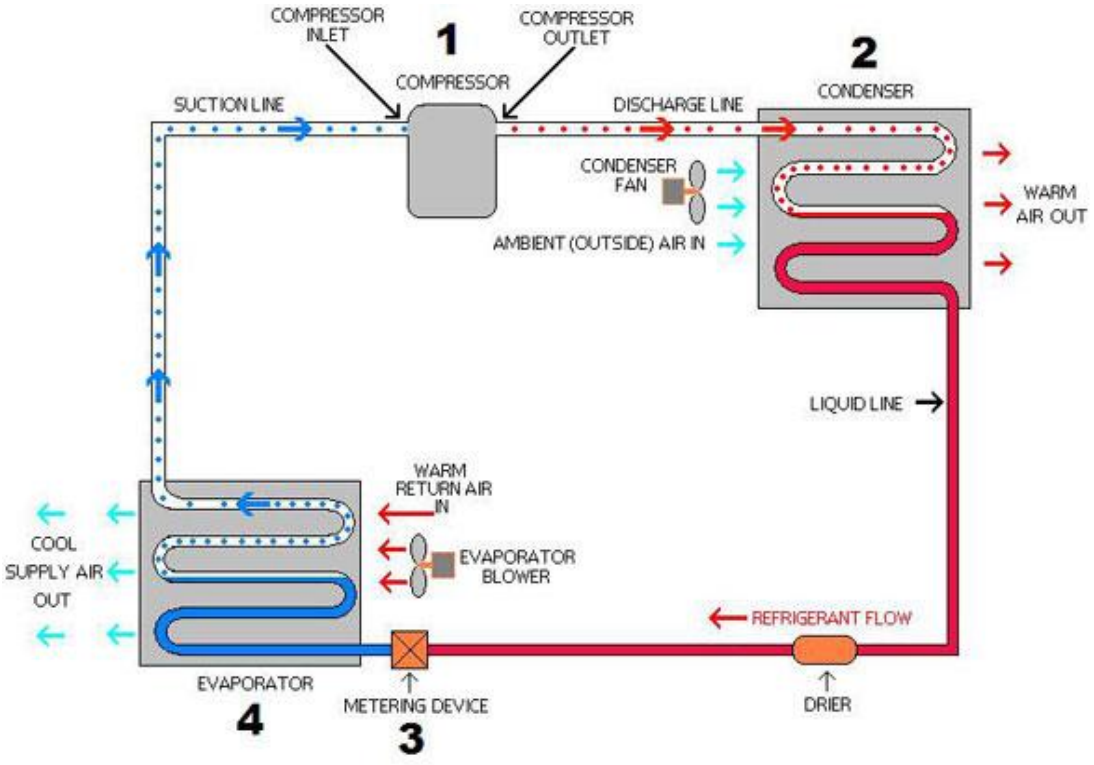
In addition to directly affecting the contemplated phasedown of high-GWP HFCs under the AIM Act (as well as the desired "smooth transition" of equipment utilizing HFCs to lower-GWP substitutes), the final rule also creates substantial uncertainty with regard to how its provisions respecting "specified components" will be implemented across various RLCACHP equipment. This is due to EPA's inconsistent description of the scope of "modifications" that are allowable for existing RLCACHP before requirements to utilize lower-GWP refrigerants are triggered and the definition of "specified components" which separately exempts such components from otherwise applicable limits on GWP.

[54] In the 2021 Framework Rule, EPA drew "a distinction between the import of bulk regulated substances and the import of regulated substances contained in products [and concluded] that the definition of 'consumption' is appropriately read to be limited to import of bulk substances. The effect of this decision is that consumption allowances are required for the import of bulk HFCs and not for the import of products containing HFCs." 86 Fed. Reg. 55,116, 55,131 (Oct. 5, 2021).

[55] Note that the "manufacture" of a "specified component" like a condensing unit in the United States would be subject to limits on the GWP contained in the product. 40 C.F.R. §84.54 prohibits a person from "manufacturing" any product in residential and light commercial RLCACHP with an HFC over 700 GWP after January 1, 2025. While "manufacture" is defined as completing the manufacturing and assembly of a "product or specified component" (*Id*. §84.54(a)(1)) the prohibition on high-GWP refrigerants in RLCACHP applies only to "products" not to "specified components." *Id*. §84.54(a)(1)

[56] 40 C.F.R. §84.54(a).

As noted above, "specified components" are defined to mean "condensing units, condensers, compressors, evaporator units, and evaporators."[57] These major systems are shown in the schematic below:[58]



In other words, EPA has defined "specified components" as essentially the "guts" of an air conditioning system. The same is true for a heat pump.

Because the final rule does not otherwise regulate other parts or subsystems of RLCACHP equipment, after January 1, 2025, it will be "legal" to replace compressors, condensers, and evaporators in existing and "new" equipment manufactured at any time after the promulgation of the rule, *without any restriction on the GWP of HFCs used in such equipment*. The only other restriction imposed by the final rule is that such replacements cannot constitute a "modification" of a system. But in this regard, EPA has defined a "modification" to apply in only two circumstances: (1) where modifications to a system increase the total cooling capacity in BTU of the system; or (2) where there is "the complete replacement of all components within a system all at once or over time."[59]

[57] 40 C.F.R. §84.52, 88 Fed. Reg. at 73,206.

[58] Schematic from http://www.air-conditioning-and-refrigeration-guide.com/air-conditioning-circuit-and-cycle-diagram.html.

[59] 88 Fed. Reg. at 73,121. Note that EPA has not defined "modification" in regulations, but rather apparently relies on specification of what actions are undertaken during the installation of a system to trigger the application of GWP limits. *See* 40 C.F.R. §84.54(e). This regulatory text is not consistent with EPA's explanation in the preamble to the rule.

Pursuant to EPA's regulations in this matter, upon charging a system to a full charge, a system will be considered to have been "installed" and therefore subject to GWP prohibitions where any of the following actions occur:

> (1) Assembling a system for the first time from used or new components;
> (2) Increasing the cooling capacity, in BTU per hour, of an existing system; or
> (3) Replacing 75 percent or more of evaporators (by number) and 100 percent of the compressor racks, condensers, and connected evaporator loads of an existing system.[60]

For existing (not new) systems, this means that if the cooling capacity of the system is not increased, major systems may be replaced that use high-GWP refrigerants, while requirements to utilize lower-GWP refrigerants only apply to a *subset* of such systems (those that exceed the percentage replacement thresholds).

It is also not clear how these requirements will be implemented. In essence, the requirement to use low-GWP refrigerants meeting the limits contained in the Technology Transitions Rule are subject to case-by-case determinations by owners, operators, and service technicians. These parties are the only ones who would realistically be able to determine that the percentage thresholds for replacement of evaporators and compressor racks, condensers, and connected evaporator loads would be breached. But how EPA will implement and enforce such a requirement across the country, in potentially thousands of separate modifications each year, is uncertain. Reporting obligations under 40 C.F.R. §84.60 only apply to a person who manufacturers or imports a product or specified component, not to entities that would actually install systems.

Finally, EPA has not articulated how this limit on system "modifications" interacts with the final rule's new definition of "specified components." The two provisions use different language to describe when a modification "triggers" lower-GWP requirements and when a specified component is exempt from such requirements. Specifically, EPA defined "specified component" for purposes of RLCACHP equipment to mean "condensing units, condensers, compressors, evaporator units, and evaporators." But the replacement percentages that trigger application of GWP limits on systems refer to "compressor *racks, condensers,* and *connected evaporator loads*," not the "condensing units," "compressors, "evaporating units," and "evaporators" that fall under the definition of a "specified component."

At minimum, this makes it entirely unclear how EPA's attempt to address modification of existing units and exempt specified components will work together to either apply or exempt components and subcomponents of RLCACHP equipment from limits on the GWP of refrigerants that may be used. And, in any event, at least some portion of affected systems will apparently be allowed to continually replace major components of a system unless they serve to increase the cooling capacity of the system. EPA failed in its duty to explain how it is interpreting the AIM Act to *not apply* to components or subcomponents as it originally

[60] *Id.*

proposed,[61] as well in its duty to explain and provide an adequate rationale for the final regulations it promulgated.

REQUEST FOR RECONSIDERATION

For the reasons set forth above, Chemours requests that EPA reconsider and amend the Technology Transitions rule so as to remove provisions that allow the continued utilization of "specified components" that use regulated substances with GWP at or over 700 in the RLCACHP sector.

Attachment 1

Differences in Regulatory Language Contained in EPA's Proposed and Final Technology Transitions Rule

Proposed Rule	Final Rule
Manufacture means to complete a product's manufacturing and assembly processes such that it is ready for initial sale, distribution, or operation. For equipment that is assembled and charged in the field, manufacture means to complete the circuit holding the regulated substance, charge with a full charge, and otherwise make functional for use for its intended purpose.	*Manufacture* means to complete the manufacturing and assembly processes of a product or specified component such that it is ready for initial sale, distribution, or operation.
Product means an item or category of items manufactured from raw or recycled materials which is used to perform a function or task. The term product includes, but is not limited to: equipment, appliances, components, subcomponents, foams, foam blowing systems (*e.g.*, pre-blended polyols), fire suppression systems or devices, aerosols, pressurized dispensers, and wipes.	*Product* means an item or category of items manufactured from raw or recycled materials which performs a function or task and is functional upon completion of manufacturing. The term includes, but is not limited to: appliances, foams, fully formulated polyols, self-contained fire suppression devices, aerosols, pressurized dispensers, and wipes.

[61] In this rule, EPA is implementing AIM Act section 103(i) which specifies that EPA is allowed to "restrict, fully, partially, or on a graduated schedule the use of a regulated substance in the sector or subsector in which the regulated substance is used." Even if this authority allows EPA to tailor restrictions in some respect, EPA did not explain that it either intended to do so in the proposed rule or how it interpreted the statute in either the proposed or final rule to allow them to do so.

Regulated product means any product in the sectors or subsectors identified in § 84.56 that contains or was manufactured with a regulated substance or a blend that contains a regulated substance, including products intended to be used with a regulated substance, or that is otherwise subject to the prohibitions of this subpart.	No language
No language	*Specified component* for purposes of equipment in the refrigeration, air conditioning, and heat pump sector means condensing units, condensers, compressors, evaporator units, and evaporators.
§ 84.54 Prohibitions on use of hydrofluorocarbons. (a) Effective January 1, 2025, no person may manufacture or import any product that uses or is intended to use a regulated substance or blend containing a regulated substance as listed in § 84.56(a), (c), (d), and (e).	**§ 84.54 Restrictions on the use of hydrofluorocarbons.** (a) No person may manufacture or import any product in the following sectors or su regulated substance as listed in this paragraph: (1) Effective January 1, 2025, self-contained residential and light commercial air conditioning and heat pump products using a regulated substance, or a blend containing a regulated substance, with a global warming potential of 700 or greater.
No language	**§ 84.56 Exemptions** (b) The prohibitions on the manufacture, import, sale, distribution, offer for same or distribution of products in 84.54(a) and (b) do not apply to components that use, or are intended to use, any regulated substance.