Consolidated Case Nos. 15-1328, 15-1329

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

MEXICHEM FLUOR, INC.,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Respondent,

CHEMOURS COMPANY FC, LLC, HONEYWELL INTERNATIONAL, INC., and NATURAL RESOURCES DEFENSE COUNCIL,

Intervenors.

On Petition for Review of Final Action by the
United States Environmental Protection Agency

PETITION FOR PANEL REHEARING AND REHEARING EN BANC

Emily K. Davis
Natural Resources Defense Council
111 Sutter Street, 21st Floor
San Francisco, CA 94104
(414) 875-6100
edavis@nrdc.org

David Doniger
Gerald N. Goldman
Benjamin Longstreth
Melissa J. Lynch
Natural Resources Defense Council
1152 15th Street NW, Suite 300
Washington, D.C. 20005
(202) 289-6868
ddoniger@nrdc.org
gngoldman@gmail.com
blongstreth@nrdc.org
llynch@nrdc.org

Dated: September 22, 2017

Counsel for Natural Resources Defense Council

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GLOSSARY

CFC	Chlorofluorocarbon
EPA	Environmental Protection Agency
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
HFP	Hexafluoropropylene

RULE 35(b) STATEMENT

Intervenor Natural Resources Defense Council respectfully petitions for panel rehearing and rehearing *en banc*. The questions raised are of exceptional public importance:

(1) Whether the panel had jurisdiction, decades after the 60-day deadline in Clean Air Act Section 307(b)(1), 42 U.S.C. §7607(b)(1), to invalidate an Environmental Protection Agency (EPA) rule established in 1994, and

(2) Whether Clean Air Act Section 612, 42 U.S.C. §7671k, empowers EPA to prohibit product manufacturers from using potent greenhouse gases called hydrofluorocarbons (HFCs) as replacements for ozone-depleting substances.

The panel majority (Kavanaugh, J., joined by Brown, J.) eviscerated the critical program Congress enacted to ensure that substitutes adopted to replace ozone-depleting chemicals "reduce overall risks to human health and the environment" "to the maximum extent practicable." 42 U.S.C. §7671k(a). If the decision stands, HFCs will continue fueling dangerous climate change and increasing the harms suffered by millions of Americans experiencing extreme weather events and other climate impacts. Further, the decision will block EPA from limiting other substitutes found to be toxic, flammable, or otherwise

hazardous – as EPA did in 1999, stopping use of a substitute refrigerant that causes kidney damage.

The decision will destroy incentives Congress created for developing safe replacements for ozone-depleting chemicals – harming dozens of companies that have invested more than a billion dollars in reliance on Section 612 to develop HFC alternatives and products that use them. It will also undercut international cooperation to curb the explosive growth of HFCs world-wide,[1] which if left unchecked could equal up to 69 percent of heat-trapping carbon dioxide emissions in 2050. 80 Fed. Reg. 42,870, 42,879 (July 20, 2015). As shown below, the decision produces many other illogical results at odds with the statutory purpose.

Correcting the jurisdictional error is also exceptionally important. Congress placed time limits on judicial review to provide regulatory predictability for all stakeholders. The panel decision undermines that policy not only in this case, but across the board.

ARGUMENT SUMMARY

The panel majority committed two serious errors. First, reaching beyond the 2015 rule at issue here, the majority improperly invalidated requirements of a rule issued 23 years ago, long past the statutory deadline for judicial review. Although

[1] *See* Kigali Amendment to the Montreal Protocol, *agreed* Oct. 15, 2016, http://ozone.unep.org/en/handbook-montreal-protocol-substances-deplete-ozone-layer/41453.

EPA properly raised the jurisdictional issue (EPA Br. 12, 18-20), the panel did not address it. This Court rigorously enforces the statutory bar on late challenges to EPA rules. *See, e.g.*, *Med. Waste Inst. & Energy Recovery Council v. EPA*, 645 F.3d 420, 427 (D.C. Cir. 2011).

Second, the majority adopted a patently unfounded interpretation of the statutory term "replace" at Step 1 of *Chevron, U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837 (1984). According to the majority, "replace" is unambiguously a "one-time occurrence," and EPA's authority ends when product manufacturers adopt substitutes that do not deplete ozone – no matter what *other* health or environmental dangers they may pose – because then "there is no ozone-depleting substance to 'replace'…." Majority 13-14.

But as the dissent (Wilkins, J.) emphasized: "The bar for deciding a case at *Chevron* step one is high, requiring clear and unambiguous congressional intent…. Because the term 'replace' is susceptible of multiple interpretations in this context, it cannot serve as the basis for discerning clear congressional intent." Dissent 1. Far from meaning only a one-time event, "replace" is "[a]t a minimum… ambiguous" and includes the continuing process of replacing ozone-depleting substances with successive substitutes – "not at a specific point in time, not just once, and not by a single substitute." *Id.* at 4, 7. Moreover, EPA's interpretation of "replace" is the only one that does not render other provisions, such as the

directive to maintain lists of safe and prohibited substitutes, a nullity. *Id.* at 7-8. EPA's reasonable construction of Section 612 should have been upheld at *Chevron* Step 2.

In *EPA v. EME Homer City Generation*, 134 S.Ct. 1584 (2014), the Supreme Court reversed a similarly aggressive *Chevron* Step 1 interpretation by a panel of this Court. Like the Clean Air Act provision at issue there, Section 612 does not "command" the specific interpretation the panel imposed, *id.* at 1593, but "delegates authority to EPA at least as certainly as the CAA provisions involved in *Chevron*," *id.* at 1603. The Court admonished the panel "to apply the text [of the statute], not to improve upon it." *Id.* at 1600 (internal quotations omitted). These lessons strongly support rehearing here.

BACKGROUND

A. Statutory Provisions

Enacted in 1990, Title VI of the Clean Air Act, 42 U.S.C. §§7671-7671q, directs EPA to phase out refrigerants, propellants, and other substances that deplete the stratospheric ozone layer (called "class I and class II substances," *id.* §7671a) and to ensure that substitutes introduced to perform the same functions do not create other avoidable health or environmental hazards.

To this end, Congress enacted Section 612, entitled "Safe Alternatives Policy." 42 U.S.C. §7671k. Section 612(a) provides: "To the maximum

practicable extent, class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment." 42 U.S.C. §7671k(a).

Section 612(c) required EPA to issue regulations within two years making it "unlawful" for any person:

> to replace any class I or class II substance with any substitute substance which the Administrator determines may present adverse effects to human health or the environment, where the Administrator has identified an alternative to such replacement that—
>
> (1) reduces the overall risk to human health and the environment; and
>
> (2) is currently or potentially available.

42 U.S.C. §7671k(c).

Section 612(c) further directs EPA to "publish a list of (A) the substitutes that are prohibited under this subsection for specific uses and (B) the safe alternatives identified under this subsection for specific uses." *Id.* Section 612(d) permits any person to petition EPA "to add a substance to the lists under subsection (c) of this section or to remove a substance from either of such lists." 42 U.S.C. §7671k(d). The statute sets no time limit on such petitions, nor does it sunset EPA's prohibitory authority (as the majority opined) when the first non-ozone-depleting substitute is adopted.

B. EPA's Rules

EPA issued the required regulations in 1994 and established the initial list of acceptable and prohibited substitutes. 59 Fed. Reg. 13,044 (March 18, 1994). At

the time, EPA listed HFCs as acceptable substitutes for various uses of chlorofluorocarbons (CFCs). EPA recognized, however, that while safer for the ozone layer, many early substitutes still posed health and environmental risks. *Id.* at 13,046. HFCs, for example, are greenhouse gases with thousands of times the heat-trapping power of carbon dioxide.[2] So the 1994 regulations explicitly provided that the acceptable and prohibited lists may be changed based on new data on risks and the availability of safer alternatives: "[T]he Agency may revise these [listing] decisions in the future as it reviews additional substitutes and receives more data on substitutes already covered by the program," and "once a substitute has been placed on either the acceptable or the unacceptable list, EPA will conduct notice-and-comment rulemaking to subsequently remove a substitute from either list." 59 Fed. Reg. at 13,047.

The 1994 regulations clearly bar anyone from continuing to use a substitute in a prohibited application after the deadline EPA specifies when adding it to the prohibited list. 40 C.F.R. §82.174(d) ("No person may use a substitute after the effective date of any rulemaking adding such substitute to the list of unacceptable substitutes.").

[2] 80 Fed. Reg. at 42,879. EPA has determined HFCs contribute to climate change that endangers public health and welfare. *Id.*

In 2015, after industry developed lower-risk alternatives, and responding to petitions under Section 612(d), EPA undertook rulemaking to move specific uses of HFCs from the list of acceptable substitutes to the list of prohibited ones. 80 Fed. Reg. at 42,870. As provided in the 1994 regulations, the rule set feasible deadlines for manufacturers to cease using HFCs in those applications.[3]

C. Panel Decision

On August 8, 2017, the panel unanimously upheld the action taken in the 2015 rule: adding specified HFC uses to the prohibited list. The panel agreed on EPA's authority to do so, and rejected charges that the listing was arbitrary and capricious. Majority 11, 21-24.

But Judges Kavanaugh and Brown then ruled that EPA may not *enforce* the prohibition against product manufacturers already using HFCs. They interpreted "replace" as unambiguously barring EPA from halting manufacturers' use of substitutes that do not deplete ozone, regardless of other health or environmental impacts. *Id.* at 14-15. In dissent, Judge Wilkins found "replace" "[a]t a minimum … ambiguous," and the majority's interpretation inconsistent with the statutory

[3] Most HFCs have enjoyed approval for over two decades – more than twice as long as Elf Atochem (Arkema's predecessor) requested in comments on the 1994 rulemaking, which asked EPA to approve substitutes "for ten years," a period that "will allow for an appropriate return on investment." (Attachment B).

structure and purposes. He found EPA's interpretation reasonable. Dissent 7, 12-19.

The majority "vacate[d] the 2015 Rule to the extent it requires manufacturers to replace HFCs with a substitute substance." Majority 24-25. The majority did not address the fact that the restriction on using prohibited substitutes is found not in the 2015 rule, but in the *1994* rule. 40 C.F.R. §82.174(d).

ARGUMENT

I. THE PANEL LACKED JURISDICTION OVER THE 1994 RULE.

The panel lacked jurisdiction to address the validity of the 1994 requirement that "no person" – including product manufacturers – may use a prohibited substitute beyond the deadline established in the rulemaking adding that substitute to the prohibited list. 40 C.F.R. §82.174(d). The opportunity for judicial review of this 1994 requirement expired long ago. EPA expressly argued this jurisdictional objection, EPA Br. 1, 12, 18-20, but the panel did not address it.

Judicial review of Clean Air Act rules must be sought within 60 days of promulgation, and rules may not be attacked subsequently. 42 U.S.C. §7607(b). Mexichem and Arkema's predecessor companies participated in the 1994 rulemaking, but neither sought review. The industry's trade association filed a petition, but dropped its case without obtaining any change in 40 C.F.R.

§82.174(d). *See Alliance for Responsible CFC Policy, Inc. v. EPA*, No. 94-1396 (D.C. Cir., terminated Feb. 5, 2002) (Attachment C).[4]

The panel majority upheld the only action over which it had jurisdiction, the 2015 addition of HFCs to the prohibited list. The panel could not gain jurisdiction over the 1994 rule by couching its holding as "vacat[ing] the 2015 Rule to the extent it requires manufacturers to replace HFCs with a substitute substance." Majority 24-25. This error warrants panel or *en banc* rehearing and reversal.

II. SECTION 612 DOES NOT BAR EPA FROM PROHIBITING USE OF HFCs.

Even if the panel had jurisdiction, the majority improperly overturned the rule at *Chevron* Step 1. The dissent persuasively showed that the majority's Step 1 construction is wrong.

A. "Replace" Is Not Unambiguously a One-Time Event.

The majority interpreted the statutory term "replace" as an unambiguously one-time event, such that after a product manufacturer transitions from ozone-depleting substances to non-depleting substitutes, "there is no ozone-depleting substance to 'replace,'" and EPA has no further authority. Majority 14. The majority relied on the most restrictive dictionary definitions of "replace" to support

[4] Because Mexichem and Arkema were present in the 1994 rulemaking, and because their trade association dropped its judicial challenge to that rule, there is no basis here for the exception allowed in *Coalition for Responsible Regulation v. EPA*, 684 F.3d 102, 129-32 (D.C. Cir. 2012).

its restrictive construction. "As relevant here, the word 'replace' means 'to take the place of.' ... In common parlance, the word 'replace' refers to a new thing taking the place of the old." *Id.* at 13-14 (references omitted).[5]

The majority's reading of "replace" is hardly the only possible one. In dissent, Judge Wilkins emphasized that "[t]he bar for deciding a case at *Chevron* step one is high, requiring clear and unambiguous congressional intent," and "[b]ecause the term 'replace' is susceptible of multiple interpretations in this context, it cannot serve as the basis for discerning clear congressional intent." Dissent 1.

The dissent cited examples from the same dictionaries describing replacement processes that play out over time, such as the ongoing transition from internal combustion engines to hybrid engines, electric motors, and other technologies. There:

> the ubiquitous product that has become the industry standard is "replaced" by a number of substitutes, and the replacement takes place not at a specific point in time, not just once, and not by a single substitute…and it may be the case that one substitute is succeeded by a better substitute at some point in time.

[5] The majority summarily stated (at 15) that it would have found EPA's interpretation unreasonable at *Chevron* Step 2, but provided no further analysis.

Id. at 4. Thus, "'replacing' the class I or class II substance is not necessarily a one-time event and alternatives or substitutes can be deemed replacements or successors, even if they are not the first-generation successor." *Id.* at 7.

Other examples of continuing replacement processes come readily to mind. If a teacher is absent for maternity leave, her students may have a succession of substitute teachers. In common usage, each substitute "replaces" not only the one before, but also the original teacher. Soft drink bottlers have replaced sugar with a succession of artificial sweeteners (*e.g.*, saccharin, aspartame, and sucralose). All are "sugar substitutes," regardless of the order in which they were adopted.

Thus, the dissent correctly concluded that "[a]t a minimum, the definition of 'replace' is ambiguous" and found EPA's interpretation reasonable at *Chevron* Step 2. Dissent 7, 12-18.

B. The Majority's Construction Has Illogical Consequences.

The majority's construction has illogical consequences that conflict with the statutory text, structure, and purpose, and that Congress could not have intended to allow, let alone have commanded. First, as already noted, the majority conceded EPA's authority to update the prohibited substitute list, and rejected claims that adding HFCs was arbitrary and capricious. Majority 11, 21-24. That should have ended the case, since the 1994 rule prohibits anyone from continuing to use HFCs after the deadlines specified in the 2015 listing rule.

But the majority made the listing meaningless by barring EPA from requiring HFC-using product manufacturers to adopt safer alternatives. The majority never explained why Congress would establish such an illogical structure, or how its interpretation serves the statutory purpose of reducing overall health and environmental risk "to the maximum extent practicable."

Further, as the dissent noted, while the statute makes using prohibited-list substitutes unlawful, it does not require product manufacturers to wait for EPA to list substitutes as "safe" before beginning to use them. Dissent 7-8. The 1994 rules put such manufacturers on notice that they must stop if EPA later puts those substitutes on the prohibited list. But by permanently grandfathering those manufacturers, the majority perversely encourages a race to adopt substitutes before EPA can fully evaluate them. This "makes a mockery of the statutory purpose," which seeks to reduce overall human health and environmental risk "to the maximum extent practicable." *Id.*

The majority's reading also defeats the Section 612(d) right to petition to update the safe and prohibited lists. The dissent explained: "By creating this petition process, it is evident that Congress desired the safe alternatives list to be a fluid and evolving concept that promotes those alternatives that pose the least overall risk to human health and the environment." Dissent 9-10. Yet the "process

becomes a half measure if EPA is only allowed to 'replace' an ozone-depleting substance once and only once." *Id*.

The majority's ruling has consequences reaching far beyond climate change, because it equally restricts EPA from addressing *other* health and safety risks from non-ozone-depleting substitutes already in use. Some such substitutes (e.g., ammonia) are toxic. Others (e.g., hydrocarbons) are flammable. The majority opinion blocks EPA from stopping use of any such substitute, no matter what risks it poses or how much safer the alternatives. This sweeping exemption for dangerous substitutes, simply because they are already used, cannot be squared with the statutory mandate.

For example, the majority's interpretation would have blocked EPA in 1999 from stopping manufacturers' use of a substitute refrigerant called hexafluoropropylene (HFP), because "[e]xposures to HFP have been shown to lead to kidney damage." 64 Fed. Reg. 3865, 3867 (Jan. 26, 1999). Under the panel opinion, EPA could not have used Section 612 to protect affected factory workers because HFP does not deplete ozone. There is no evidence Congress intended that dangerous result.

The majority opinion has further irrational consequences. As the dissent showed, Section 612(c) makes it unlawful for "anyone and everyone" to replace ozone-depleting substances with prohibited substitutes. Dissent 5-6. Covered

entities are not limited to product manufacturers; they include, for example, retail businesses, building owners, and homeowners who still use old air conditioners containing CFCs. These entities remain prohibited by law from replacing their old units with new equipment containing prohibited-list chemicals. The majority's ruling thus leads to the absurdity that end-users may not install the very HFC-using equipment that the majority allows product manufacturers to continue making.

Further, the majority described "replacement" as though all manufacturers converted their products from ozone-depleting substances to non-ozone-depleting substitutes at the same moment. Majority 14. That is not what happened. Each automaker, for example, made a range of car models and converted them from CFCs to HFCs at different times. If EPA had placed HFCs on the prohibited list *in the midst of* those transitions, companies could have kept using HFCs in some models but could not have begun using them in others. There is no evidence Congress intended this disparate outcome.

This is not just a historical problem. Some manufacturers of cooling systems for large buildings ("chillers") converted from CFCs to HFCs in the 1990s, but one company adopted a hydrochlorofluorocarbon (HCFC) – a class II ozone-depleting substance that may be used until 2020. *See* 42 U.S.C. §7671d(a)(3). EPA set reasonable deadlines for all chiller makers to adopt non-

HFC alternatives.[6] Under the majority opinion, however, only the company still using the ozone-depleting HCFC will have to do so, while its competitors are grandfathered to keep using HFCs indefinitely.[7]

C. The Majority Misread the Legislative History.

While disclaiming reliance on legislative history, the majority seized on an irrelevant fact – that the Senate version of Title VI included provisions addressing greenhouse gases, later dropped in conference. Majority 15. The majority contended this shows Congress withheld authority to consider climate risk when regulating substitutes under Section 612.

But the dissent demonstrated that the relevant parts of Section 612 hailed from the House, not the Senate. Dissent 10-12. Both bills contained the policy of

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[6] *See* 81 Fed. Reg. 86,778 (Dec. 1, 2016) (listing additional prohibited uses). Mexichem and Arkema have also challenged this rule, D.C. Cir. No. 17-1024 (held in abeyance).

[7] The majority suggested that EPA could regulate HFCs using the Toxic Substances Control Act or other Clean Air Act provisions. Majority 16. Even if these laws could be jury-rigged for this purpose, there is no reason to discard the specific provision Congress enacted (with full knowledge of those other laws) to address the safety of replacements for ozone-depleting chemicals, nor to make EPA waste resources repeating the rulemaking.

The majority also suggested that on remand EPA might consider "retroactive disapproval" of the 1994 listing of HFCs as acceptable. Majority 18-21. First, the majority appears to have misconstrued EPA's brief, which merely asserted the authority to revise regulatory decisions based on new data. Second, under the majority's "retroactive" theory, it is unclear how EPA could consider post-1994 data on new risks and alternatives, or – if it may – how that proceeding would differ from the current rule.

ensuring that replacements "reduce overall risks to human health and the environment" "to the maximum extent practicable." But only the House bill contained the language of Sections 612(c) and (d) making it unlawful to replace ozone-depleting substances with dangerous substitutes when there are lower-risk alternatives, requiring EPA to list prohibited and acceptable substitutes, and authorizing petitions to update those lists. The conference committee expressly adopted those provisions. 136 Cong. Rec. S16949 (Oct. 27, 1990). This history gives no support to the majority's restrictive reading of "replace."

D. The Majority Misread the Administrative History.

The majority suggested that EPA had formerly taken a narrower view of its authority. Majority 12-13. That is factually incorrect and legally immaterial. As the dissent explained, an agency's interpretation, whether constant or changed, is irrelevant when a court applies *Chevron* Step 1. Dissent 10.

In any event, EPA's position did not change. As explained above, EPA's 1994 implementing regulations barred use of prohibited-list substitutes and stated explicitly that the agency may revise listing decisions through future rulemakings. 59 Fed. Reg. at 13,047. That is exactly what EPA did regarding HFP in 1999 and HFCs in 2015.[8]

[8] The majority referenced (at 12) several EPA statements that the dissent demonstrated (at 13-16) concerned *another provision* – Section 612(e), 42 U.S.C. §7671k(e) – obligating companies to submit "unpublished health and safety

E. The Majority Erected Improper Burdens for Climate Change Regulation

The majority opinion suggested that EPA must show a clearer statutory foundation for climate change regulations than for other rules, and that EPA overreached by interpreting Section 612 to authorize HFC regulation despite Congress's "failure to enact general climate change legislation." Majority 17-18.

The Supreme Court's seminal climate change decision, *Massachusetts v. EPA*, rejected this very argument, holding that the Clean Air Act supplies the necessary authority for regulating greenhouse gases. 549 U.S. 497, 529-30 (2007) ("That subsequent Congresses have eschewed enacting binding emissions limitations to combat global warming tells us nothing about what Congress meant when it" enacted the statutory provisions at issue). In Section 612, "overall risk to human health and environment" plainly encompasses climate risk.

Utility Air Regulatory Group v. EPA, 134 S.Ct. 2427 (2014), cited by the majority at 17, does not teach otherwise. There the Court found that greenhouse gases may be excluded from provisions where "their inclusion would radically transform those programs and render them unworkable as written." *Id.* at 2442. The majority identifies no "radical" or "unworkable" consequence of interpreting Section 612 to bar use of HFCs.

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studies" before marketing certain new substitutes. Those statements have no bearing on Sections 612(a), (c), or (d) or the meaning of "replace."

The majority's only effort to conjure such consequences was its suggestion that unless "replace" is restrictively defined, EPA could continue regulating substitutes for "even 100 years or more." Majority 14. But there is no evidence Congress intended Section 612 to sunset. Many Clean Air Act provisions function indefinitely. *See, e.g.*, 42 U.S.C. §7409 (National Ambient Air Quality Standards reviewed every five years).

Moreover, the possibility of an unreasonable future rule does not make Section 612 "unworkable" or "radically transform[ative]," and does not justify restrictively reading "replace." This Court has conventional tools to restrain excesses. For example, if EPA were to require another refrigerant transition without demonstrating a meaningful reduction in overall health and environmental risk or the availability of alternatives, this Court could find that action arbitrary and capricious.

In this case, however, neither majority nor dissent found fault with EPA's factual determinations. The rule should have been upheld as a reasonable interpretation and application of Section 612. The panel's error in crippling a statutory program with large and continuing health and environmental importance must be corrected.

CONCLUSION

For these reasons, the Court should grant rehearing and uphold EPA's 2015 HFC rule.

Respectfully submitted,

Dated: September 22, 2017

/s/ *David Doniger*

Emily K. Davis
Natural Resources Defense Council
111 Sutter Street, 21st Floor
San Francisco, CA 94104
(415) 875-6100
edavis@nrdc.org

David Doniger
Gerald N. Goldman
Benjamin Longstreth
Melissa J. Lynch
Natural Resources Defense Council
1152 15th Street NW, Suite 300
Washington, D.C. 20005
(202) 289-6868
ddoniger@nrdc.org
gngoldman@gmail.com
blongstreth@nrdc.org
llynch@nrdc.org

CERTIFICATE OF COMPLIANCE

I hereby certify that this petition complies with the requirements of Federal Rules of Appellate Procedure 32(a)(5) and 32(a)(6) because it has been prepared in 14-point Times New Roman, a proportionally spaced typeface.

I further certify that this petition complies with the type-volume limitation of Federal Rule of Appellate Procedure 35(b)(2)(A) because it contains 3,898 words, excluding the parts exempted under Federal Rule 32(f) and Circuit Rule 32(e)(1).

/s/ *David Doniger*

Dated: September 22, 2017

CERTIFICATE OF SERVICE

I hereby certify that on September 22, 2017, the foregoing Petition for Panel Rehearing and Rehearing En Banc was served upon all registered counsel via the Court's CM/ECF system.

/s/ *David Doniger*

Dated: September 22, 2017

ADDENDUM

Attachment A

Mexichem Fluor, Inc. v. EPA, No. 15-1328 (D.C. Cir. Aug. 8, 2017)

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued February 17, 2017 Decided August 8, 2017

No. 15-1328

MEXICHEM FLUOR, INC.,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

THE CHEMOURS COMPANY FC, LLC, ET AL.,
INTERVENORS

Consolidated with 15-1329

On Petitions for Review of Final Action by the
United States Environmental Protection Agency

Dan Himmelfarb argued the cause for petitioners. With him on the joint briefs were *John S. Hahn*, *Roger W. Patrick*, *Matthew A. Waring*, *William J. Hamel*, *W. Caffey Norman*, *T. Michael Guiffré*, and *Kristina V. Foehrkolb*.

Dustin J. Maghamfar, Attorney, U.S. Department of Justice, argued the cause for respondent. On the brief were *John C. Cruden*, Assistant Attorney General, *Elizabeth B. Dawson*, Attorney, U.S. Department of Justice, and *Jan*

Tierney and *Diane McConkey*, Attorneys, U.S. Environmental Protection Agency.

Thomas A. Lorenzen argued the cause for intervenors The Chemours Company FC, LLC, and Honeywell International Inc. in support of respondent. With him on the brief were *Robert J. Meyers*, *Sherrie A. Armstrong*, *Jonathan S. Martel*, and *Eric A. Rey*.

David Doniger, *Benjamin Longstreth*, *Melissa J. Lynch*, and *Emily K. Davis* were on the brief for intervenor Natural Resources Defense Council in support of respondent.

Before: BROWN, KAVANAUGH, and WILKINS, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* KAVANAUGH, with whom *Circuit Judge* BROWN joins, and with whom *Circuit Judge* WILKINS joins as to Part I and Part III.

Opinion concurring in part and dissenting in part filed by *Circuit Judge* WILKINS.

KAVANAUGH, *Circuit Judge*: The separation of powers and statutory interpretation issue that arises again and again in this Court is whether an executive or independent agency has statutory authority from Congress to issue a particular regulation. In this case, we consider whether EPA had statutory authority to issue a 2015 Rule regulating the use of hydrofluorocarbons, known as HFCs.

According to EPA, emissions of HFCs contribute to climate change. In 2015, EPA therefore issued a rule that restricted manufacturers from making certain products that contain HFCs. HFCs have long been used in a variety of

familiar products – in particular, in aerosol spray cans, motor vehicle air conditioners, commercial refrigerators, and foams. But as a result of the 2015 Rule, some of the manufacturers that previously used HFCs in their products no longer may do so. Instead, those manufacturers must use other EPA-approved substances in their products.

As statutory authority for the 2015 Rule, EPA has relied on Section 612 of the Clean Air Act. 42 U.S.C. § 7671k. Section 612 requires manufacturers to replace *ozone-depleting substances* with safe substitutes.

The fundamental problem for EPA is that HFCs are not ozone-depleting substances, as all parties agree. Because HFCs are not ozone-depleting substances, Section 612 would not seem to grant EPA authority to require replacement of HFCs. Indeed, before 2015, EPA itself maintained that Section 612 did *not* grant authority to require replacement of non-ozone-depleting substances such as HFCs. But in the 2015 Rule, for the first time since Section 612 was enacted in 1990, EPA required manufacturers to replace non-ozone-depleting substances (HFCs) that had previously been deemed acceptable by the agency. In particular, EPA concluded that some HFCs could no longer be used by manufacturers in certain products, even if the manufacturers had long since replaced ozone-depleting substances with HFCs.

EPA's novel reading of Section 612 is inconsistent with the statute as written. Section 612 does not require (or give EPA authority to require) manufacturers to replace non-ozone-depleting substances such as HFCs. We therefore vacate the 2015 Rule to the extent it requires manufacturers to replace HFCs, and we remand to EPA for further proceedings consistent with this opinion.

I

A

In the 1980s, an international movement developed to combat depletion of the ozone layer. Depletion of the ozone layer exposes people to more of the sun's harmful ultraviolet light, thereby increasing the incidence of skin cancer, among other harms. The international efforts to address ozone depletion culminated in the Montreal Protocol, an international agreement signed in 1987 by the United States and subsequently ratified by every nation in the United Nations. The Protocol requires signatory nations to regulate the production and use of a variety of ozone-depleting substances. Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sept. 16, 1987, S. Treaty Doc. No. 100-10, 1522 U.N.T.S. 29.

Congress implemented U.S. obligations under the Montreal Protocol by enacting, with President George H.W. Bush's signature, the 1990 Amendments to the Clean Air Act. Those amendments added a new Title VI to the Clean Air Act. Title VI regulates ozone-depleting substances.

Title VI identifies two classes of ozone-depleting substances: "class I" and "class II" substances. 42 U.S.C. § 7671a(a), (b). Section 612(a), one of the key provisions of Title VI, requires manufacturers to replace those ozone-depleting substances: "To the maximum extent practicable, class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment." *Id.* § 7671k(a). With a few exceptions, Title VI requires manufacturers to phase out their use of some ozone-depleting

substances by 2000, and to phase out their use of other ozone-depleting substances by 2015. *Id.* §§ 7671c(b)-(c), 7671d(a).

When manufacturers stop using ozone-depleting substances in their products, manufacturers may need to replace those substances with a substitute substance. Under Section 612(a), EPA may require manufacturers to use safe substitutes when the manufacturers replace ozone-depleting substances. *Id.* § 7671k(a).

To implement the Section 612(a) requirement that ozone-depleting substances be replaced with safe substitutes, Section 612(c) requires EPA to publish a list of both safe and prohibited substitutes:

> Within 2 years after November 15, 1990, the Administrator shall promulgate rules under this section providing that it shall be unlawful to replace any class I or class II substance with any substitute substance which the Administrator determines may present adverse effects to human health or the environment, where the Administrator has identified an alternative to such replacement that –
>
> (1) reduces the overall risk to human health and the environment; and
> (2) is currently or potentially available.
>
> The Administrator shall publish a list of (A) the substitutes prohibited under this subsection for specific uses and (B) the safe alternatives identified under this subsection for specific uses.

Id. § 7671k(c). In short, Section 612(c) requires EPA to issue a list of both authorized and prohibited substitute substances based on the safety and availability of the substances.

Importantly, the lists of safe substitutes and prohibited substitutes are not set in stone. Section 612(d) provides: "Any person may petition the Administrator to add a substance to the lists under subsection (c) of this section or to remove a substance from either of such lists." *Id.* § 7671k(d). In other words, if EPA places a substance on the list of safe substitutes, EPA may later change its classification and move the substance to the list of prohibited substitutes (or vice versa).

In 1994, EPA promulgated regulations to implement Section 612(c). *See* Protection of Stratospheric Ozone, 59 Fed. Reg. 13,044 (Mar. 18, 1994). At the time, EPA indicated that once a manufacturer has replaced its ozone-depleting substances with a non-ozone-depleting substitute, Section 612(c) does not give EPA authority to require the manufacturer to later replace that substitute with a different substitute. EPA explained that Section 612(c) "does not authorize EPA to review substitutes for substances that are not themselves" ozone-depleting substances covered under Title VI. EPA Response to Comments on 1994 Significant New Alternatives Policy Rule, J.A. 50.

B

Hydrofluorocarbons, known as HFCs, are substances that contain hydrogen, fluorine, and carbon. When HFCs are emitted, they trap heat in the atmosphere. They are therefore "greenhouse gases." But HFCs do not deplete the ozone layer. As a result, HFCs are not ozone-depleting substances covered by Title VI of the Clean Air Act. Instead, HFCs are potential *substitutes for* ozone-depleting substances in certain products.

In 1994, acting pursuant to its authority under Section 612(c), EPA concluded that certain HFCs were safe substitutes

for ozone-depleting substances when used in aerosols, motor vehicle air conditioners, commercial refrigerators, and foams, among other things. *See* Protection of Stratospheric Ozone, 59 Fed. Reg. at 13,122-46. Over the next decade, EPA added HFCs to the list of safe substitutes for a number of other products. *See, e.g.*, Protection of Stratospheric Ozone: Listing of Substitutes for Ozone-Depleting Substances, 68 Fed. Reg. 4004, 4005 (Jan. 27, 2003); Protection of Stratospheric Ozone; Listing of Substitutes for Ozone-Depleting Substances, 64 Fed. Reg. 22,982, 22,984 (Apr. 28, 1999).

As a result, in the 1990s and 2000s, many businesses stopped using ozone-depleting substances in their products. Many businesses replaced those ozone-depleting substances with HFCs. HFCs became prevalent in many products. HFCs have served as propellants in aerosol spray cans, as refrigerants in air conditioners and refrigerators, and as blowing agents that create bubbles in foams.

Over time, EPA learned more about the effects of greenhouse gases such as HFCs. In 2009, EPA concluded that greenhouse gases may contribute to climate change, increasing the incidence of mortality and the likelihood of extreme weather events such as floods and hurricanes. *See* Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,497-98 (Dec. 15, 2009).

In 2013, President Obama announced that EPA would seek to reduce emissions of HFCs because HFCs contribute to climate change. EXECUTIVE OFFICE OF THE PRESIDENT, THE PRESIDENT'S CLIMATE ACTION PLAN 10 (2013). The President's Climate Action Plan indicated that "the Environmental Protection Agency will use its authority

through the Significant New Alternatives Policy Program" of Section 612 to reduce HFC emissions. *Id.*

Consistent with the Climate Action Plan, EPA promulgated a Final Rule in 2015 that moved certain HFCs from the list of safe substitutes to the list of prohibited substitutes. Protection of Stratospheric Ozone: Change of Listing Status for Certain Substitutes Under the Significant New Alternatives Policy Program, 80 Fed. Reg. 42,870 (July 20, 2015) [hereinafter Final Rule]. In doing so, EPA prohibited the use of certain HFCs in aerosols, motor vehicle air conditioners, commercial refrigerators, and foams – even if manufacturers of those products had long since replaced ozone-depleting substances with HFCs. *Id.* at 42,872-73.

Therefore, under the 2015 Rule, manufacturers that used those HFCs in their products are no longer allowed to do so. Those manufacturers must replace the HFCs with other substances that are on the revised list of safe substitutes.

In the 2015 Rule, EPA relied on Section 612 of the Clean Air Act as its source of statutory authority. EPA said that Section 612 allows EPA to "change the listing status of a particular substitute" based on "new information." *Id.* at 42,876. EPA indicated that it had new information about HFCs: Emerging research demonstrated that HFCs were greenhouse gases that contribute to climate change. *See id.* at 42,879. EPA therefore concluded that it had statutory authority to move HFCs from the list of safe substitutes to the list of prohibited substitutes. Because HFCs are now prohibited substitutes, EPA claimed that it could also require the replacement of HFCs under Section 612(c) of the Clean Air Act even though HFCs are not ozone-depleting substances.

Mexichem Fluor and Arkema are businesses that make HFC-134a for use in a variety of products. The 2015 Rule prohibits the use of HFC-134a in certain products. The companies have petitioned for review of the 2015 Rule. They raise two main arguments. *First*, they argue that the 2015 Rule exceeds EPA's statutory authority under Section 612 of the Clean Air Act. In particular, they contend that EPA does not have statutory authority to require manufacturers to replace HFCs, which are non-ozone-depleting substances, with alternative substances. *Second*, they allege that EPA's decision in the 2015 Rule to remove HFCs from the list of safe substitutes was arbitrary and capricious because EPA failed to adequately explain its decision and failed to consider several important aspects of the problem. We address those arguments in turn.

II

A

We first consider whether Section 612 of the Clean Air Act authorizes the 2015 Rule.

In 1987, the United States signed the Montreal Protocol. The Montreal Protocol is an international agreement that has been ratified by every nation that is a member of the United Nations. The Protocol requires nations to regulate the production and use of certain ozone-depleting substances. *See* Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sept. 16, 1987, S. Treaty Doc. No. 100-10, 1522 U.N.T.S. 29.

In 1990, in part to implement U.S. obligations under the Protocol and to regulate the production and use of ozone-

depleting substances, Congress added a new Title to the Clean Air Act: Title VI. Among Title VI's provisions is Section 612.

Section 612(a) of the Act provides: "To the maximum extent practicable," ozone-depleting substances that are covered under Title VI "shall be replaced by chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment." 42 U.S.C. § 7671k(a). Title VI sets phase-out dates for those ozone-depleting substances. *Id.* §§ 7671c, 7671d.

To implement Section 612(a), EPA maintains lists of both safe substitutes and prohibited substitutes for ozone-depleting substances. The provision governing those lists, Section 612(c), provides: It "shall be unlawful to replace any" ozone-depleting substance that is covered under Title VI "with any substitute substance" that is on EPA's list of "prohibited" substitutes. *Id.* § 7671k(c). A manufacturer that violates Section 612(c) can be subject to substantial civil and criminal penalties. *See id.* § 7413(b), (c).[1]

In the years since 1990, many manufacturers of the products relevant here – aerosols, motor vehicle air conditioners, commercial refrigerators, and foams – have stopped using ozone-depleting substances in those products. Manufacturers have often replaced those ozone-depleting substances with HFCs that have long been on the list of safe substitutes.

[1] Although we focus primarily on product manufacturers in this case, our interpretation of Section 612(c) applies to any regulated parties that must replace ozone-depleting substances within the timelines specified by Title VI. *See, e.g.*, 42 U.S.C. §§ 7671c, 7671d.

In the 2015 Rule, acting under the authority of Section 612(c), EPA moved some HFCs from the list of safe substitutes to the list of prohibited substitutes. As a result, manufacturers replacing ozone-depleting substances can no longer use those HFCs as a safe substitute. Even more importantly for present purposes, under the Rule, manufacturers that have already replaced ozone-depleting substances with HFCs can no longer use those HFCs in their products.

In this case, all parties agree that EPA possesses statutory authority to require manufacturers to replace ozone-depleting substances within the timelines specified by Title VI – generally by 2000 for some ozone-depleting substances, and by 2015 for other ozone-depleting substances. *See, e.g.*, 42 U.S.C. §§ 7671c, 7671d. If a substance on the safe substitutes list is later found to be an ozone-depleting substance, EPA possesses direct statutory authority to order the replacement of that ozone-depleting substance in accordance with those statutory timelines.

All parties in this case also agree that EPA may change the lists of safe and prohibited substitutes based on EPA's assessment of the risks that those substitutes pose for "human health and the environment." *Id.* § 7671k(c); *see id.* § 7671k(d). It follows that Section 612(c) allows EPA to move a substitute from the list of safe substitutes to the list of prohibited substitutes. Therefore, assuming that all other statutory criteria are satisfied, EPA may move HFCs from the list of safe substitutes to the list of prohibited substitutes, as it did in the 2015 Rule.

In addition, all parties agree that, under Section 612(c), EPA may prohibit a manufacturer from replacing an ozone-depleting substance that is covered under Title VI with a prohibited substitute. It follows that EPA may bar any

manufacturers that *still make products that contain ozone-depleting substances* from replacing those ozone-depleting substances with HFCs. Of course, that aspect of the 2015 Rule is not a big deal as of now because there are few (if any) manufacturers that still make products that use ozone-depleting substances.[2]

The key dispute in this case is whether EPA has authority under Section 612(c) to prohibit manufacturers from making products that contain HFCs *if those manufacturers already replaced ozone-depleting substances with HFCs at a time when HFCs were listed as safe substitutes*. In those circumstances, does EPA have authority to require a manufacturer to now replace HFCs, which are non-ozone-depleting substances, with another substitute?

For many years, EPA itself stated that it did not possess authority under Section 612(c) to require the replacement of non-ozone-depleting substances. For example, in 1994, EPA explained that Section 612(c) "does not authorize EPA to review substitutes for substances that are not themselves" ozone-depleting substances. EPA Response to Comments on 1994 Significant New Alternatives Policy Rule, J.A. 50. Two years later, EPA reiterated that interpretation: EPA explained that it "does not regulate the legitimate substitution" of one substance for another "first generation non-ozone-depleting" substance. EPA Response to OZ Technology's Section 612(d) Petition, J.A. 145.

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[2] The parties disagree over whether, as a factual matter, *any* manufacturers still make products that use ozone-depleting substances. EPA says yes. Mexichem and Arkema say no. We need not resolve that factual dispute here, as it has no bearing on our legal analysis of the meaning of Section 612(c).

EPA now argues that it actually possesses such authority under the statute. For the first time, EPA has sought to order the replacement of a non-ozone-depleting substitute that had previously been deemed acceptable by the agency.[3]

EPA's new interpretation of Section 612(c) depends on the word "replace." As noted above, Section 612(c) makes it unlawful to "replace" an ozone-depleting substance that is covered under Title VI with a substitute substance that is on the list of prohibited substitutes. 42 U.S.C. § 7671k(c). EPA recognizes that manufacturers "replace" an ozone-depleting substance when the manufacturers initially replace that ozone-depleting substance with a safe substitute. But EPA argues that the initial substitution is not the only time when manufacturers "replace" an ozone-depleting substance. EPA claims that a manufacturer continues to "replace" the ozone-depleting substance every time the manufacturer uses the substitute substance, indefinitely into the future. According to EPA, replacement is not a one-time occurrence but a never-ending process. In EPA's view, because manufacturers continue to "replace" ozone-depleting substances with HFCs every time they use HFCs in their products, EPA continues to have authority to require manufacturers to stop using HFCs and to use a different substitute.

EPA's current reading stretches the word "replace" beyond its ordinary meaning. As relevant here, the word

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[3] During oral argument, EPA conceded that it had never previously moved a non-ozone-depleting substance from the list of safe substitutes to the list of prohibited substitutes. Counsel for EPA stated: "I believe it is correct that the prior de-listings have involved ozone depleting substitutes, and I may not be correct for that, but we can assume for this morning that that is correct." Tr. of Oral Arg. at 14. Since the time of oral argument, EPA has not made any filings to this Court to retract that concession.

"replace" means to "take the place of." THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (5th ed. 2017 online); WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1925 (1993); THE OXFORD ENGLISH DICTIONARY 642 (2d ed. 1989). In common parlance, the word "replace" refers to a new thing taking the place of the old. For example, President Obama replaced President Bush at a specific moment in time: January 20, 2009, at 12 p.m. President Obama did not "replace" President Bush every time President Obama thereafter walked into the Oval Office. By the same token, manufacturers "replace" an ozone-depleting substance when they transition to making the same product with a substitute substance. After that transition has occurred, the replacement has been effectuated, and the manufacturer no longer makes a product that uses an ozone-depleting substance. At that point, there is no ozone-depleting substance to "replace," as EPA itself long recognized.[4]

Under EPA's current interpretation of the word "replace," manufacturers would continue to "replace" an ozone-depleting substance with a substitute even 100 years or more from now. EPA would thereby have indefinite authority to regulate a

[4] The dissenting opinion says that the word "replace" may mean "to provide a substitute for," rather than "to take the place of." Dissenting Op. at 4, 6. But the dissenting opinion's alternative interpretation of the word "replace" suffers from the same flaw as EPA's interpretation. A manufacturer "provides a substitute for" an ozone-depleting substance in a product when the manufacturer transitions to making that product with a substitute substance. After that transition takes place, the manufacturer can no longer "provide a substitute for" an ozone-depleting substance. At that point, there is no ozone-depleting substance to "provide a substitute for." Therefore, even under the dissenting opinion's interpretation, a manufacturer cannot "replace" an ozone-depleting substance after the manufacturer stops using that substance.

manufacturer's use of that substitute. That boundless interpretation of EPA's authority under Section 612(c) borders on the absurd.

Because the text is sufficiently clear, we need not consider the legislative history. *See NLRB v. SW General, Inc.*, 137 S. Ct. 929, 942, slip op. at 14 (2017). In any event, the legislative history strongly supports our conclusion that Section 612(c) does not grant EPA continuing authority to require replacement of non-ozone-depleting substitutes. The Senate's version of Title VI applied to "Stratospheric Ozone *and Global Climate Protection*." S. 1630, 101st Cong. tit. VII (as passed by Senate, Apr. 3, 1990) (emphasis added). The Senate's version of the safe alternatives policy would have required the replacement not just of ozone-depleting substances, but also of substances that contribute to climate change. *Id.* sec. 702, §§ 503(8), 514(a). In other words, the Senate bill would have granted EPA authority to require the replacement of non-ozone-depleting substances such as HFCs. But the Conference Committee did not accept the Senate's version of Title VI. *See* H.R. Rep. No. 101-952, at 262 (1990) (Conf. Rep.). Instead, the Conference Committee adopted the House's narrower focus on ozone-depleting substances. *Id.*; *see* S. 1630, 101st Cong. sec. 711, § 156(b) (as passed by House, May 23, 1990). In short, although Congress contemplated giving EPA broad authority under Title VI to regulate the replacement of substances that contribute to climate change, Congress ultimately declined.

Put simply, EPA's strained reading of the term "replace" contravenes the statute and thus fails at *Chevron* step 1. And even if we reach *Chevron* step 2, EPA's interpretation is unreasonable. *See Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843 & n.9 (1984); *see also*

*Global Tel*Link v. FCC*, 859 F.3d 39, 59-60 (D.C. Cir. 2017) (Silberman, J., concurring).

Notwithstanding our conclusion regarding Section 612, EPA still possesses several statutory authorities to regulate HFCs.

For one thing, EPA has statutory authority under Section 612(c) to prohibit any manufacturers that still use ozone-depleting substances that are covered under Title VI from deciding in the future to replace those substances with HFCs. Those manufacturers have yet to "replace" ozone-depleting substances with a substitute. When they ultimately do replace ozone-depleting substances, EPA may prohibit them from using HFCs as substitutes.[5]

For another thing, EPA possesses other statutory authorities, including the Toxic Substances Control Act, to directly regulate non-ozone-depleting substances that are causing harm to the environment. *See* 15 U.S.C. §§ 2601-2629 (Toxic Substances Control Act); *see also* 42 U.S.C. § 7408 (National Ambient Air Quality Standards program); *id.* § 7412 (Hazardous Air Pollutants program); *id.* §§ 7470-7492 (Prevention of Significant Deterioration program); *id.* § 7521 (Section 202 of Clean Air Act). Our decision today does not in any way cabin those expansive EPA authorities.

In addition, EPA still has statutory authority to require product manufacturers to replace substitutes that (unlike HFCs) are themselves ozone depleting. *See, e.g.*, 42 U.S.C. §§ 7671c,

[5] To be sure, Mexichem and Arkema argue that EPA acted arbitrarily and capriciously in removing HFCs from the list of safe substitutes. As explained in Part III below, however, we reject that argument. We conclude that EPA acted lawfully in removing HFCs from the list of safe substitutes.

7671d. Suppose, for example, that EPA determines that a substance is a safe substitute for ozone-depleting substances, but EPA later concludes that the substitute is itself an ozone-depleting substance that is covered under Title VI. In that circumstance, EPA possesses statutory authority to order the replacement of that ozone-depleting substance in accordance with the timelines prescribed by Title VI.

However, EPA's authority to regulate ozone-depleting substances under Section 612 and other statutes does not give EPA authority to order the replacement of substances that are not ozone depleting but that contribute to climate change. Congress has not yet enacted general climate change legislation. Although we understand and respect EPA's overarching effort to fill that legislative void and regulate HFCs, EPA may act only as authorized by Congress. Here, EPA has tried to jam a square peg (regulating non-ozone-depleting substances that may contribute to climate change) into a round hole (the existing statutory landscape).

The Supreme Court cases that have dealt with EPA's efforts to address climate change have taught us two lessons that are worth repeating here. *See, e.g.*, *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427 (2014). *First*, EPA's well-intentioned policy objectives with respect to climate change do not on their own authorize the agency to regulate. The agency must have statutory authority for the regulations it wants to issue. *Second*, Congress's failure to enact general climate change legislation does not authorize EPA to act. Under the Constitution, congressional inaction does not license an agency to take matters into its own hands, even to solve a pressing policy issue such as climate change. Justice Breyer has summarized that separation of powers point in another context – there, the war against al Qaeda. *See Hamdan v. Rumsfeld*, 548 U.S. 557, 636 (2006) (Breyer, J., concurring).

Justice Breyer stated in *Hamdan* that war is not a blank check for the President. *Id.*; *see also Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 637 (1952) (Jackson, J., concurring). So too, climate change is not a blank check for the President.

Those bedrock separation of powers principles undergird our decision in this case. However much we might sympathize or agree with EPA's policy objectives, EPA may act only within the boundaries of its statutory authority. Here, EPA exceeded that authority.

B

EPA's reliance on the statutory term "replace" does not justify the 2015 Rule. But that is not necessarily the end of the matter. EPA suggests that it may be able to require manufacturers to replace HFCs under an alternative theory. The question under that alternative theory is this: May EPA *retroactively* conclude that a manufacturer's past decision to "replace" an ozone-depleting substance with HFCs is no longer lawful, even though the original replacement with HFCs was lawful at the time it was made? Under such a "retroactive disapproval" approach, EPA could prohibit manufacturers from making products that use HFCs even though those HFCs were deemed safe substitutes at the time the manufacturers decided to initially replace an ozone-depleting substance with HFCs.

EPA's brief to this Court advanced such an argument only in passing. In its brief, EPA stated: An "agency's inherent authority to revise an earlier administrative determination where faced with new developments or in light of reconsideration of the relevant facts is an essential part of the office of a regulatory agency." EPA Br. 27 (internal quotation marks omitted).

The problem for present purposes is that EPA did not squarely articulate a "retroactive disapproval" rationale in the 2015 Rule. Instead, EPA relied on its expansive interpretation of the word "replace" in the Rule. Therefore, we may not uphold the Rule based on the "retroactive disapproval" theory. *See SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947); *Pasternack v. National Transportation Safety Board*, 596 F.3d 836, 838 (D.C. Cir. 2010).

Rather, we must remand to EPA. On remand, if EPA decides to pursue this "retroactive disapproval" approach, the agency would have to address at least three issues.

First, for this "retroactive disapproval" theory to hold up, EPA would have to reasonably conclude either (i) that Section 612(c) provides EPA with statutory authority to employ a "retroactive disapproval" approach or (ii) that EPA has inherent authority to retroactively disapprove a prior replacement, even a replacement that occurred many years ago. *See generally Vartelas v. Holder*, 566 U.S. 257, 266 (2012) (retroactivity principles in statutory interpretation); *Ivy Sports Medicine, LLC v. Burwell*, 767 F.3d 81, 86 (D.C. Cir. 2014) (scope of agencies' inherent reconsideration authority).

Second, if EPA concludes that it has authority for "retroactive disapprovals," EPA must explain the basis for its conclusion and explain its change in interpretation of Section 612(c). *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). As noted above, before the 2015 Rule, EPA indicated that Section 612(c) "does not authorize EPA to review substitutes for substances that are not themselves" covered ozone-depleting substances. EPA Response to Comments on 1994 Significant New Alternatives Policy Rule, J.A. 50; *see* Protection of Stratospheric Ozone, 59 Fed. Reg.

13,044, 13,052 (Mar. 18, 1994); EPA Response to OZ Technology's Section 612(d) Petition, J.A. 145. But under the retroactive disapproval approach, EPA would in effect require manufacturers to replace their HFCs, which are not ozone-depleting substances, with other substitutes. Such a change in EPA's approach would require an explanation. Moreover, to the extent that EPA's prior approach had "engendered serious reliance interests," EPA would need to provide a "more detailed justification" for its change. *Fox*, 556 U.S. at 515.

Third, even if EPA has authority for a "retroactive disapproval" approach, EPA must comply with applicable due process constraints on retroactive decisionmaking. The Due Process Clause limits the Government's authority to retroactively alter the legal consequences of an entity's or person's past conduct. To satisfy the Due Process Clause, EPA must at a minimum "provide regulated parties fair warning of the conduct a regulation prohibits or requires." *Christopher v. SmithKline Beecham Corp.*, 567 U.S. 142, 156 (2012) (internal quotation marks and alteration omitted). In this case, for example, even if EPA has statutory authority to retroactively disapprove the replacement of an ozone-depleting substance with HFCs, EPA plainly may not impose civil or criminal penalties on a manufacturer based on the manufacturer's *past* use of HFCs at the time when EPA said it was lawful to use HFCs. *See id.* We do not understand EPA to disagree with that proposition.

Unless and until EPA concludes on remand that it has cleared those three hurdles,[6] EPA may not apply the 2015 Rule

[6] We take no position now on whether EPA can meet those requirements. Moreover, we note that those three requirements would be necessary for EPA to prevail on a "retroactive disapproval" theory. We do not opine here on whether they would be sufficient.

to require manufacturers to replace one non-ozone-depleting substitute with another substitute, so long as the initial substitute was listed as safe at the time the substitution was effectuated. Of course, even if EPA concludes that it has cleared those hurdles, EPA's conclusions may be subject to review in this Court in another case.

In short, we vacate the 2015 Rule to the extent the Rule requires manufacturers to replace HFCs with a substitute substance. We remand to EPA. On remand, if it chooses, EPA may determine whether it has "retroactive disapproval" authority – whether, in other words, it has authority to conclude that a manufacturer's past decision to replace an ozone-depleting substance with HFCs is no longer lawful.

III

Our conclusion that the 2015 Rule must be vacated to the extent it requires manufacturers to replace HFCs does not answer the question whether EPA reasonably removed HFCs from the list of safe substitutes in the first place. Mexichem and Arkema assert that EPA's decision to remove HFCs from the list of safe substitutes was arbitrary and capricious. In support, they advance a number of arguments.

The arbitrary and capricious standard requires that a rule be "reasonable and reasonably explained." *Communities for a Better Environment v. EPA*, 748 F.3d 333, 335 (D.C. Cir. 2014) (internal quotation marks omitted). EPA must "examine the relevant data and articulate a satisfactory explanation for its action." *Motor Vehicle Manufacturers Association of United States, Inc. v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 43 (1983). Applying that deferential standard, we reject all of Mexichem and Arkema's arbitrary and capricious challenges.

First, Mexichem and Arkema assert that EPA ignored a key "requirement" in the 1994 Rule implementing Section 612(c) – namely, that EPA may "restrict only those substitutes that are significantly worse" than the available alternatives. Reply Br. 21; Protection of Stratospheric Ozone, 59 Fed. Reg. 13,044, 13,046 (Mar. 18, 1994) (capitalization altered). They claim that EPA did not demonstrate that HFCs are significantly worse than the available alternatives. In fact, however, the 1994 Rule said that restricting significantly worse substitutes was just one of seven "guiding principles" for EPA – not a hard-and-fast requirement. Protection of Stratospheric Ozone, 59 Fed. Reg. at 13,046. Moreover, based on data regarding the environmental effects of the relevant substances, EPA repeatedly concluded that the substances EPA added to the list of prohibited substitutes posed a "significantly greater risk" than the available alternatives. *See, e.g.*, Final Rule, 80 Fed. Reg. at 42,904, 42,905, 42,912, 42,915, 42,917, 42,919. So that challenge fails.[7]

Second, Mexichem and Arkema argue that EPA should not have relied so heavily on the numeric Global Warming Potential score to assess the "Atmospheric effects and related health and environmental impacts" of HFCs and other substitutes. 40 C.F.R. § 82.180(a)(7)(i). But as EPA has explained, that is the tool preferred by leading scientists for analyzing the effects of greenhouse gases. EPA Response to

[7] Mexichem and Arkema also assert that EPA's decision to change the listing status of HFCs violated EPA's regulations because EPA did not compare HFCs to the proper comparator substances. *See* 40 C.F.R. §§ 82.170(a), 82.172. That is not accurate. In the 2015 Rule, EPA compared HFCs with other substances that are on EPA's list of safe substitutes, as EPA is permitted to do under its regulations. *See id.* § 82.170(a); Final Rule, 80 Fed. Reg. at 42,937.

Comments on Proposed Rule at 162, J.A. 727. EPA reasonably relied on the Global Warming Potential score.

Third, Mexichem and Arkema suggest that EPA failed to provide objective benchmarks for determining which substances' Global Warming Potential scores were too high to be acceptable. But EPA was not assessing the score of each individual substance in isolation. Instead, EPA was *comparing* substances with one another. EPA reasonably concluded that substances with higher scores posed a greater global warming risk than substances with lower scores. *See, e.g.*, Final Rule, 80 Fed. Reg. at 42,882. That is a "comprehensible" and objective method for assessing environmental risks. *Postal Service v. Postal Regulatory Commission*, 785 F.3d 740, 753 (D.C. Cir. 2015).

Fourth, according to Mexichem and Arkema, EPA failed to consider data regarding the overall amount of each substitute that would be emitted into the atmosphere. Not so. EPA considered whether there were "substantial differences" between HFCs and other substitutes that "might affect total atmospheric emissions." Final Rule, 80 Fed. Reg. at 42,938. EPA also looked at other factors related to atmospheric emissions, "such as charge size of refrigeration equipment and total estimates of production," as part of "its assessment of environmental and health risks of new alternatives." *Id.* Because EPA accounted for factors that affect the quantity of emissions, EPA did not entirely fail to "consider an important aspect of the problem." *State Farm*, 463 U.S. at 43.

Fifth, Mexichem and Arkema assert that EPA should have accounted for energy efficiency when assessing the atmospheric effects of HFCs. But as EPA explained, the energy efficiency of a substance often is not informative in isolation. Final Rule, 80 Fed. Reg. at 42,921-22. The

efficiency of the substance depends on the efficiency of the *equipment* in which the substance is used. In part because EPA cannot control the efficiency of equipment under Section 612(c), EPA decided not to evaluate the energy efficiency of substitutes in its analysis. *Id.* Under those circumstances, EPA's approach was reasonable and reasonably explained.

Sixth, Mexichem and Arkema argue that EPA should have placed conditions on how HFCs could be used, rather than entirely prohibiting certain uses of HFCs. But EPA adequately explained that use controls are typically appropriate when a *particular use* of a substance carries an especially high risk that can be mitigated by placing conditions on that use. *Id.* at 42,899. Use controls would not be appropriate for HFCs, EPA stated, because the hazards of HFCs are not unique to particular uses. Instead, "the environmental risks" from HFCs "are due to the collective global impact of refrigerant emissions released over time." *Id.* EPA also explained that use controls for HFCs did not make sense because other substitutes are readily available. *Id.* That conclusion is reasonable and reasonably explained for purposes of arbitrary and capricious review under the Administrative Procedure Act.

Seventh, Mexichem and Arkema claim that EPA failed to consider transition costs – that is, the costs of transitioning from prohibited HFCs to approved substitutes. But EPA did take transition costs into account when it decided to give certain product manufacturers extra time to comply with the Rule. *See, e.g.*, *id.* at 42,933. EPA acted reasonably for purposes of arbitrary and capricious review.

* * *

In sum, we grant the petitions and vacate the 2015 Rule to the extent it requires manufacturers to replace HFCs with a

substitute substance. We remand to EPA for further proceedings consistent with this opinion. We reject all of Mexichem and Arkema's other challenges to the 2015 Rule. The petitions are therefore granted in part and denied in part.

So ordered.

WILKINS, *Circuit Judge*, concurring in part and dissenting in part: I must depart from the Court's opinion concluding that Section 612 of the Clean Air Act unambiguously prohibits EPA from requiring the replacement of HFCs. The majority claims that "EPA's novel reading of Section 612 is inconsistent with the statute as written," because Section 612 does not provide EPA with the authority to require "manufacturers to replace non-ozone-depleting substances such as HFCs." Maj. Op. 3. Accordingly, the majority disposes of the issue in a *Chevron* step-one analysis through an interpretation of the word "replace." *See id.* at 9-15. I disagree. The bar for deciding a case at *Chevron* step one is high, requiring clear and unambiguous congressional intent. *See Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984). Because the term "replace" is susceptible of multiple interpretations in this context, it cannot serve as the basis for discerning clear congressional intent. *See, e.g., U.S. Postal Serv. v. Postal Regulatory Comm'n*, 640 F.3d 1263, 1267 n.4 (D.C. Cir. 2011) ("Our second inquiry will require us to proceed to *Chevron* step 2 because the phrase 'due to' has an additional—and ambiguous—meaning, which the Commission did not address."). Thus, the Court must proceed to *Chevron* step two and decide whether EPA's interpretation of the statutory scheme is reasonable. Because I find that it is, I would deny the petition on all grounds.

I.

We review EPA's interpretation of the Clean Air Act under the two-step framework established in *Chevron*. *See Catawba Cnty., N.C. v. EPA*, 571 F.3d 20, 35 (D.C. Cir. 2009). Pursuant to step one of the *Chevron* analysis, "both the agency and the courts [must] give effect to Congress's unambiguously expressed intent if the underlying statute speaks directly to the precise question at issue." *Citizens of Coal Council v. Norton*, 300 F.3d 478, 481 (D.C. Cir. 2003). In other words, "if the

intent of Congress is clear and unambiguously expressed by the statutory language at issue, that would be the end of our analysis." *Zuni Pub. Sch. Dist. No. 89 v. Dep't of Educ.*, 550 U.S. 81, 93 (2007). When making this determination, we may rely on the traditional tools of statutory interpretation, including the statute's text, structure, purpose, and legislative history. *Citizens of Coal Council*, 300 F.3d at 481.

I respectfully disagree with the majority that the relevant language in Section 612 meets the *Chevron* step one standard. This is simply not a case where Congress has clearly and directly spoken to the issue in a manner that "unambiguously foreclosed the agency's statutory interpretation." *Catawba Cnty.*, 571 F.3d at 35.

The majority focuses primarily upon two provisions of Section 612 as clearly and unambiguously demonstrating that the 2015 Rule was not authorized by Congress. Here are the two provisions:

> To the maximum extent practicable, *class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes* that reduce overall risks to human health and the environment.

42 U.S.C. § 7671k(a) (emphasis added).

> Within 2 years after November 15, 1990, the Administrator shall promulgate rules under this section providing that *it shall be unlawful to replace any class I or class II substance with any substitute substance* which the Administrator determines may present adverse effects to human health or the environment,

> where the Administrator has identified an alternative to such replacement that—
>
> (1) reduces the overall risk to human health and the environment; and
>
> (2) is currently or potentially available.
>
> The Administrator shall publish a list of (A) the substitutes prohibited under this subsection for specific uses and (B) the safe alternatives identified under this subsection for specific uses.

Id. § 7671k(c) (emphasis added).

The majority contends that the word "replace," when used in these two provisions, can have only one meaning: to "take the place of." Maj. Op. 13-14; *see id.* at 14 ("In common parlance, the word 'replace' refers to a new thing taking the place of the old."). Under this definition, a substitute can only "replace" an ozone-depleting substance *once*. After the manufacturer has transitioned from an ozone-depleting substance to a non-ozone-depleting substitute, there is nothing left to "replace." *Id.* While the majority's definition may be one way to interpret the statute, for several different reasons, it is by no means the only way to construe the text.

First, with respect to the plain text of the statute, the meaning of the word "replace" is ambiguous. Nowhere in Section 612 is the term "replace" statutorily defined. *See* 42 U.S.C. § 7671 (definitions). The majority does not disagree, and instead relies on dictionary definitions to conclude that "replace" means to "take the place of." Maj. Op. 13-14. However, each of the dictionaries cited by the majority also defines "replace" to mean to "substitute for." *See* THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE (5th ed. 2017 online) ("To fill the place of; provide

a substitute for"); WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1925 (1993) ("[T]o take the place of: serve as a substitute for or successor of"); THE OXFORD ENGLISH DICTIONARY 642 (2d ed. 1989) ("To take the place of, become a substitute for (a person or thing).").

The difference in meaning between "to take the place of" and "to provide a substitute for" may be subtle, but it is rather significant in the context of this statute. Section 612 pertains to replacing a category, or *class*, of chemical substances; indeed the substances are defined in the statute as "class I" and "class II" substances. 42 U.S.C. § 7671(3), (4). Thus, this statute is not directed to a specific individual or position, and the majority's example noting that "President Obama *replaced* President Bush at a specific moment in time," Maj. Op. 14, is therefore inapposite. A more pertinent example would be: "Hybrid electric engines, fully electric engines, hydrogen fuel cell power, and other alternatives are replacing the internal combustion engines in passenger cars." The Oxford Dictionary provides a similar example sentence: "This is required to replace older medicines that will eventually face competition from generic substitutes." *Replace*, OXFORD DICTIONARY, https://en.oxforddictionaries.com/definition/replace (last accessed July 14, 2017). In both examples, the ubiquitous product that has become the industry standard is "replaced" by a number of substitutes, and the replacement takes place not at a specific point in time, not just once, and not by a single substitute. Instead, the ubiquitous item is "replaced" by any number of substitutes over the course of years, and it may be the case that one substitute is succeeded by a better substitute at some point in time. As one dictionary puts it, "*Replace* applies both to substituting something new or workable for that which is lost, depleted or won out and to placing another in the stead of one who leaves or is dismissed from a position." American Heritage Dictionary (2d Coll. ed. 1982).

Second, the structure of the statutory text also contradicts the clear meaning proffered by the majority. The two key provisions of Section 612 are not directed to any particular group of individuals or class of companies. They provide that "class I and class II substances shall be replaced by chemicals, product substitutes, or alternative manufacturing processes," 42 U.S.C. § 7671k(a), and that "it shall be unlawful to replace any class I or class II substance with any substitute substance," *id.* § 7671k(c). These Congressional mandates, written in the passive voice and without identifying a particular target of the regulation, appear to apply to anyone and everyone, including retailers, product manufacturers and chemical manufacturers.[1] The majority focuses on product manufacturers, contending that once the manufacturer replaces the class I or class II substance in its product with a non-ozone-depleting substitute, "the replacement has been effectuated." Maj. Op. 14.

However, this point of view ignores the retailer. Suppose a retailer needs to refurbish an air conditioner manufactured in the early 1990s that uses a class I substance as a refrigerant. If the retailer chooses to have the air conditioner serviced by recharging it with new refrigerant, she is prohibited from

[1] In other provisions of Section 612, Congress identified the target of the regulation as chemical manufacturers, like the petitioners in this case. *See, e.g.*, 42 U.S.C. § 7671(e) ("The Administrator shall require *any person who produces* a chemical substitute for a class I substance to provide the Administrator with such person's unpublished health and safety studies on such substitute and *require producers* to notify the Administrator not less than 90 days before new or existing chemicals are introduced into interstate commerce for significant new uses as substitutes for a class I substance." (emphasis added)); *see also id.* § 7671(11) (defining "produce" as "the manufacture of a substance from any raw material or feedstock chemical . . . .").

"replacing" the class I substance with a chemical substitute "which the Administrator determines may present adverse effects to human health or the environment[,]" 42 U.S.C. § 7671k(a). If the retailer chooses to purchase a new air conditioner instead, she is still "replacing" a class I substance, and the new air conditioner cannot contain an unsafe substitute. *Id*. Either way, the retailer's action falls within the scope of the mandates in Section 612. And if the retailer purchases a new air conditioner, the fact that the manufacturer may have previously "replaced" a class I substance with an HFC as the refrigerant in its air conditioners does not mean that "the replacement has [already] been effectuated" with respect to that retailer. *See* Maj. Op. 14. By the express terms of the statute, if the EPA determines as of 2017 that HFCs are no longer safe substitutes for class I substances given available refrigerant alternatives, it would appear that Congress has given EPA the authority to prohibit the further use of HFCs in air conditioners so that the retailer in our example cannot "replace" her class I substance-utilizing air conditioner with a new air conditioner utilizing an unsafe substitute. The majority holds otherwise. Alternatively, the express terms of the statute appear to give EPA the authority to prohibit the retailer from recharging her old air conditioner with an HFC as the refrigerant, which the agency could implement by restricting the manufacture, marketing, and use of HFCs. Given its focus on product manufacturers, the majority opinion is curiously silent about how its statutory interpretation affects retailers and other end users who have products utilizing class I and class II substances, despite the obvious importance of the issue.

In my view, the connotation of "replace" as "to provide a substitute for" more accurately reflects the intent of Congress given the use of the term and sentence structure in the key statutory provisions. This interpretation is further supported by the fact that Congress used the word "substitute" ten separate

times in Section 612, and the word "alternative" a dozen times more, including in the title of the section. *See* 42 U.S.C. § 7671k ("Safe Alternatives Policy"). In that context, "replacing" the class I or class II substance is not necessarily a one-time event and alternatives or substitutes can be deemed replacements or successors, even if they are not the first-generation successor. At a minimum, the definition of "replace" is ambiguous, and "to provide a substitute for" just as likely manifests Congress's intent as the definition proffered by the majority. "Confronted by two plausible readings of the statute, we cannot declare Congress' intent unambiguous." *Adirondack Med. Ctr. v. Sebelius*, 740 F.3d 692, 698 (D.C. Cir. 2014).

Third, the majority's interpretation also undermines the purpose of Section 612, which is, "[t]o the maximum extent practicable," to carry out the replacement of class I and class II substances with "chemicals, product substitutes, or alternative manufacturing processes that reduce overall risks to human health and the environment." 42 U.S.C. § 7671k(a). Significantly, Congress authorized EPA to develop a list of unsafe alternatives and a list of safe alternatives, but Congress chose, for whatever reason, only to bar the use of alternatives on the "unsafe list," rather than mandating the use of only those alternatives appearing on the "safe list." *See id.* § 7671k(c) ("it shall be unlawful to replace any class I or class II substance with any substitute substance which the Administrator determines may present adverse effects to human health or the environment"). By writing the statute in this manner, Congress allowed manufacturers to replace class I and II substances with alternatives that have not been specifically approved by the EPA, so long as the substitute has not been specifically deemed unsafe by the EPA. The majority's interpretation of "replace" makes a mockery of the statutory purpose, because a product manufacturer could "replace" a class I substance with a

substitute before the EPA has a chance to evaluate it completely, and if the agency later determines that a different substitute "reduce[s] overall risks to human health and the environment," *id.* § 7671k(a), the agency would be powerless to tell that product manufacturer that it could no longer use the more risky substitute. In the majority's view, the "replacement" is a *fait accompli*, and EPA is powerless to act under Section 612. Such an interpretation undermines Congress's intent to "reduce overall risks to human health and the environment" in a manner "to the maximum extent practicable." *Id.*

In doing so, the majority takes an even more extreme position than petitioners, who conceded that "if ozone-depleting substances are in use, EPA can list and de-list" to and from the lists of acceptable and unacceptable alternatives. Oral Arg. at 11:07, *Mexichem Fluor, Inc. v. EPA* (Feb. 17, 2017) (No. 15-1328). According to petitioners, EPA "can list or de-list ozone-depleting substances and non-ozone-depleting substances *because the list at that point is consisting of things that will replace the things that are in use, which are ozone-depleting substances* . . . ." *Id.* at 11:14 (emphasis added). The petitioners are at least trying to interpret "replace" in a manner consistent with the statutory purpose – but as explained *infra* in part II, they are simply wrong on the facts, because ozone-depleting substances are still in use. The majority's definition of "replace," on the other hand, has no semblance of consistency with this aspect of Congress's purpose.

Indeed, Section 612 is aimed at regulating which substitutes can be used as replacements for class I and class II substances, rather than regulating those ozone-depleting substances themselves. Congress phased out the production and manufacture of ozone-depleting substances in other statutory provisions. *See* 42 U.S.C. §§ 7671c, 7671d. Section

612, on the other hand, is focused solely on substituting class I and class II substances with safe alternatives. *See id.* § 7671k. Because Section 612 promotes the use of safe substitutes, it necessarily requires a reading of the word "replace" that comports with this congressional intent. The majority's cramped reading of the statute contradicts Congress's intent that the EPA prohibit the use of "*any* substitute substance" that may "present adverse effects to human health and the environment" where a less risky substitute is available. *Id.* § 7671k(c) (emphasis added).

Moreover, the majority's interpretation also runs counter to the purpose of the petition process contained in Section 612. Congress provided that "[a]ny person may petition the Administrator to add a substance to the [safe or unsafe alternatives] lists . . . or to remove a substance from either of such lists." *Id.* § 7671k(d). The petition process becomes a half-measure if EPA is only allowed to "replace" an ozone-depleting substance once and only once. The majority's interpretation grants EPA one bite at the apple, prohibiting additions to the unsafe substitutes list or removals from the safe substitutes list if the product manufacturer has already begun using a non-ozone-depleting substitute for the class I or class II substance. By creating this petition process, it is evident that Congress desired the safe alternatives list to be a fluid and evolving concept that promotes those alternatives that pose the least overall risk to human health and the environment. Congress undoubtedly knew how to instruct EPA to develop a list of acceptable and unacceptable substitutes by a certain date and then stop there. The fact that Congress did not do so is telling. *See City of Arlington, Tex. v. FCC*, 133 S. Ct. 1863, 1868 (2013) ("Congress knows to speak in plain terms when it wishes to circumscribe, and in capacious terms when it wishes to enlarge, agency discretion."). Congress chose a starkly different path, and the majority has taken the power that

Congress granted individuals to request the addition of more risky substitutes to the unsafe list and rendered it largely impotent. When interpreting two interrelated statutory provisions, "[a]bsent clearly expressed congressional intent to the contrary, it is our duty to harmonize the provisions and render each effective." *Adirondack Med. Ctr.*, 740 F.3d at 698–99.

Fourth, the majority's references to EPA's prior interpretations of its statutory authority cannot change the *Chevron* step one analysis. *See* Maj. Op. 12. I agree with the majority that we must reject any EPA interpretation of "replace" if we determine that Congress has clearly and directly spoken to the contrary, because "[t]he judiciary is the final authority on issues of statutory construction and must reject administrative constructions which are contrary to clear congressional intent." *Chevron*, 467 U.S. at 843 n.9. But the EPA's interpretations of the statute are not themselves suitable evidence of Congress's clear intent. *See Village of Barrington, Ill. v. Surface Transp. Bd.*, 636 F.3d 650, 660 (D.C. Cir. 2011); *see also Kentuckians for Commonwealth Inc. v. Rivenburgh*, 317 F.3d 425, 443 (4th Cir. 2003) ("Agency interpretations of statutory provisions only come into play if Congress has not spoken clearly. Relying on *agency* interpretations as evidence of a clear *congressional* intent is therefore misguided." (emphasis in original)).

Finally, an examination of Section 612's legislative history does not change the outcome. Where "a statute is silent or ambiguous with respect to the question at issue," we must "defer to the 'executive department's construction of a statutory scheme it is entrusted to administer,' unless the legislative history of the enactment *shows with sufficient clarity that the agency construction is contrary to the will of Congress*." *Japan Whaling Ass'n v. Am. Cetacean Soc.*, 478

U.S. 221, 233 (1986) (quoting *Chevron*, 467 U.S. at 844 (emphasis added, citation omitted)). In other words, "conflicting [legislative history] cannot clarify ambiguous statutory language," *Am. Bankers Ass'n v. Nat'l Credit Union Admin.*, 271 F.3d 262, 269 (D.C. Cir. 2001), and "[w]hile [legislative] history can be used to clarify congressional intent even when a statute is superficially unambiguous, the bar is high," *Williams Companies v. FERC*, 345 F.3d 910, 914 (D.C. Cir. 2003).

Here, the legislative history cited by the majority cannot meet the required high bar to show clear Congressional intent, particularly since the legislative activity "was not . . . addressed to the precise issue raised by th[is] case[]." *Chevron*, 467 U.S. at 853. The precise question presented here is whether "Section 612 unambiguously covers only replacements of ozone-depleting substances and does not authorize 'replacements of replacements'." Pet'rs' Br. 29. The Senate bill cited by the majority had no provisions whatsoever regarding how replacements of covered substances were to be carried out. Instead, the Senate bill would have phased out production entirely of not only ozone-depleting substances, but also certain substances which were known or reasonably suspected to contribute to "atmospheric or climatic modification." S. 1630, 101st Cong. §§ 504, 506 (as passed by Senate, Apr. 3, 1990). But the Senate bill had no provisions for creating a list of acceptable substitutes or for prohibiting unacceptable substitutes; nor did it have any provisions for adding substitutes to, or removing substitutes from, the "acceptable" and "unacceptable" lists. Instead, the Senate bill directed EPA to support programs to identify and promote the development of safe alternatives and to maintain a public clearinghouse of "available" alternatives. *Id.* § 514. All of the statutory provisions in Section 612 concerning acceptable and banned alternatives originated in the House bill. S. 1630, 101st

Cong. § 156 (1990) (as passed by House, May 23, 1990). At best, this legislative history shows that Congress rejected a proposal to ban and phase out the production of substances that contribute to climate change. However, the history is silent on the much different question of whether Congress intended to allow EPA to make "replacements of replacements" of the substitutes for banned ozone-depleting substances. Because "the legislative history as a whole is silent on the precise issue before us," *Chevron*, 467 U.S. at 862, it cannot demonstrate clear congressional intent on that question.

* * *

Given my interpretation of Section 612's plain language, purpose, and legislative history, I cannot agree with my colleagues that the word "replace" clearly and unambiguously means to "take the place of," and only permits a one-time replacement of ozone-depleting substances. Rather, at a minimum, sufficient ambiguity exists to proceed to *Chevron* step two. *See, e.g.*, *NRDC v. EPA*, 22 F.3d 1125, 1138 (D.C. Cir. 1994) ("Because the phrase 'take effect' is itself ambiguous, its meaning must be discerned according to *Chevron*'s second step.").

II.

The second step in the *Chevron* framework requires courts to grant deference to an administrative agency's construction of an ambiguous statute if that interpretation is reasonable. *Chevron*, 467 U.S. at 843. "[A] court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency." *Id.* Where the interpretation would be one Congress could have sanctioned, the administrative agency is entitled to deference and its construction should be afforded "considerable weight." *Id.*

For the reasons discussed in Part I, I find EPA's interpretation of Section 612 to be reasonable. EPA's interpretation comports with a common definition of the word "replace," which is to "[p]rovide a substitute for." *See, e.g.*, *Replace*, OXFORD DICTIONARY, *supra*. This meaning of "replace" is consistent with Section 612's statutory purpose, which is, "*to the maximum extent practicable*," to replace ozone-depleting substances with "chemicals, product substitutes, or alternative manufacturing processes *that reduce overall risks to human health and the environment*." 42 U.S.C. § 7671k(a)(emphasis added). Comparing alternatives to each other and selecting the alternative that creates the lowest level of overall risk to human health and the environment accords nicely with the policy choice explicitly stated by Congress. EPA's interpretation further avoids the majority's manufacturer-by-manufacturer structure, which does not fully comport with the statutory framework.

Finally, I do not read the administrative record in the same manner as the majority. EPA never stated that regulation of non-ozone-depleting substitutes was completely off limits, nor clearly acted in a manner to foreclose its present interpretation.

The past language of EPA that is relied upon by the majority is far from conclusive on the meaning of "replace" in this context. It is true that EPA stated in the course of the 1994 rulemaking that "Section 612(c) authorizes EPA to review all substitutes to Class I and II substances, but does not authorize EPA to review substitutes for substances that are not themselves class I or II substances." J.A. 50. But this excerpt alone does not tell the whole story. At the time, several commenters requested that "EPA clarify that SNAP should only apply to substitutes for Class I or Class II compounds," while another commenter suggested "that SNAP should aggressively reevaluate previously approved second-

generation alternatives as new and environmentally preferable alternatives are developed." *Id.* EPA began its response to these comments as follows:

> A key issue is whether there exists a point at which an alternative should no longer be considered a class I or II substitute as defined by Section 612. The Agency believes that as long as class I or II chemicals are being used, *any substitute designed to replace these chemicals* is subject to review under Section 612.

J.A. 50 (emphasis added). This statement by the agency is consistent with how it has construed "replace" in the 2015 Rule.

Furthermore, EPA's seemingly contradictory statement relied upon by the majority must be placed in context. In Section 612, Congress specified that producers of chemical substitutes for class I substances are required "to provide the Administrator with such person's unpublished health and safety studies on such substitute and require producers to notify the Administrator not less than 90 days before new or existing chemicals are introduced into interstate commerce for significant new uses as substitutes for a class I substance." 42 U.S.C. § 7671k(e). This advance reporting requirement gives the agency a 90-day period to review the chemical substitute and related data and make a determination as to whether it is a safe alternative or unsafe alternative for a class I or class II substance before the substitute hits the marketplace.[2] The EPA

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[2] During the 1994 rulemaking, EPA stated its intent to apply the 90-day advance reporting requirement to new substitutes for class II

and the National Resources Defense Council contend that EPA's 1994 comment only pertained to the 90-day advance reporting – and concomitant – review requirements of the SNAP program. Resp't's Br. 6; NRDC Intervenor's Br. 13. Thus, when the agency stated that "Section 612(c) authorizes EPA to review all substitutes to Class I and II substances, but does not authorize EPA to review substitutes for substances that are not themselves class I or II substances," J.A. 50, EPA argues it meant only that 1) it could not require 90-day advance reporting of intended use and health data for certain second-generation substitutes by chemical manufacturers, and 2) the agency was not required to conduct an advance review before any such second-generation substitute hit the market. Thus, EPA contends that it never said, or meant to say, that EPA had no power whatsoever to review second-generation substitutes, either in response to a petition or on the agency's own accord. While the back and forth in the commentary during the 1994 rulemaking is not crystal clear, it appears to support the interpretation that EPA only intended to disclaim authority to "review" second-generation substitutes in the 90-day advance notification and review context, and only if the first-generation substitute was a non-ozone-depleting substance. *See id*. ("For example, if a hydrofluorocarbon (HFC) is introduced as a first-generation refrigerant substitute for either a class I (*e.g.*, CFC-12) or class II chemical (*e.g.*, HCFC-22), it is subject to review

---

substances, even though the statute only expressly mentions the advance reporting requirement in the context of substitutes for class I substances. J.A. 42. This deadline for review following advance notice and reporting is the same as in the petition process, where Congress required that EPA, within 90 days, to "grant or deny" a petition to add a substitute to, or remove a substitute from, either the safe alternatives list or the unsafe alternatives list for class I and class II substances. 42 U.S.C. § 7671k(d).

and listing under section 612. Future substitutions to replace the HFC *would then be exempt from reporting* under section 612 because the first-generation alternative did not deplete stratospheric ozone." (emphasis added)).[3]

The majority also relies upon EPA's statement in response to a 1995 petition by OZ Technology, Maj. Op. 12, but there the EPA appears to have disclaimed regulatory authority under SNAP if the substance is being proffered as a "legitimate substitut[e]" for a non-ozone-depleting substance, rather than as a substitute for a class I or class II ozone-depleting substance. J.A. 145, 412. EPA exerted regulatory authority over the petition because it found that OZ Technology submitted its proposed alternative as a substitute for CFC-12, an ozone-depleting substance, rather than as a substitute to HFC-134a, a non-ozone-depleting substitute. J.A. 412, 415. This course of events seems to be consistent with the agency's position here. At any rate, petitioners concede that the HFCs they manufacture are substitutes for CFCs, which are ozone-depleting substances. Thus, petitioners do not stand in the same shoes as OZ Technology and they have not identified any statements where EPA has disclaimed authority to regulate HFCs or other direct substitutes for ozone-depleting substances such as CFCs.

I understand (and share) the majority's concern that the Clean Air Act does not grant EPA the authority to take a

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[3] Similarly, in this same passage, EPA also stated "[w]here second-generation substitutes replace first-generation substitutes that are themselves ozone-depleters (*e.g.*, HCFCs), these second-generation substitutes are bound by the same *notification and review requirements* under section 612 as first-generation substitutes to ozone-depleting chemicals." *Id*. (emphasis added).

completely unbounded approach and thereby regulate "substitutes" for class I and class II substances forever. In my view, the regulation of substitutes under Section 612 requires that the traditional and ubiquitous ozone-depleting substance originally utilized for the specific end-use is still in service. Without the prerequisite of an ozone-depleting substance, there can be nothing for the substitute to "replace." In other words, where ozone-depleting chemicals are no longer in existence or in use for a particular industry or end-use, then EPA cannot regulate substitutes for those end-uses under Section 612.

Here, petitioners claim that "class I and class II substances have already been replaced" with respect to the 25 end-uses addressed in the 2015 Rule. Pet'rs' Br. 20. In support of this assertion, Petitioners rely on two examples. First, Petitioners state that in the motor-vehicle air conditioning sector, CFC-12, which is an ozone-depleting substance, had historically been used. *Id.* However, Petitioners claim that the record shows that by the mid-1990s, use of CFC-12 in the manufacture of new cars stopped in the United States, and manufacturers uniformly adopted HFC-134a as a substitute. *Id.* This statement is true as far as it goes, but it does not show that ozone-depleting substances are not still in use in the motor-vehicle air conditioning sector. Indeed, the record confirms "some older vehicles may still be using CFC-12." J.A. 815. Thus, we cannot conclude that ozone-depleting substances are not still in "use" in this sector.

Second, Petitioners reference the commercial refrigeration industry, arguing that because the commercial refrigeration industry has "transitioned away" from ozone-depleting substances, such substances are no longer in use in this sector. *See* Pet'rs' Br. 21; J.A. 528. This argument suffers from the same flaw as the motor-vehicle air conditioning argument. The fact that modern commercial refrigeration systems may not use

ozone-depleting chemicals does not mean that older refrigeration systems do not continue to use such substances, and the record indicates that ozone-depleting substances remain in "use" in the commercial refrigeration industry. J.A. 535. With respect to the other 23 challenged end-uses, Petitioners are silent and offer no support to prove that ozone-depleting substances have been completely eliminated in those sectors.

EPA responds to Petitioners' claim, arguing that "ozone-depleting substances are still being directly 'replaced' by approved alternatives," Resp't's Br. 21 n.8, and that "as long as ozone-depleting substances are being used, any substitute designed to replace these chemicals is subject to review" under Section 612, *id.* at 31 (alterations omitted). While EPA acknowledges that "in some cases the use of ozone-depleting substances has ceased," it contends that ozone-depleting substances have not been completely eliminated such that a "second-generation substitute world" exists. *Id.* Petitioners failed to respond to this argument in their reply brief. Given that the burden is on Petitioners to demonstrate that EPA's interpretation of Section 612 is unreasonable or statutorily impermissible with respect to these 25 end-uses, they have failed to show that the agency's policy choice "runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Mtr. Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983).

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In sum, I disagree with the majority's holding in Part II, and concur with all remaining parts. I would find the word "replace" sufficiently ambiguous to require a *Chevron* step two analysis. Because I find that EPA's interpretation of Section

612 is reasonable, I would deny the petition for review on all grounds.

Attachment B

Elf Atochem, Comments on the Proposed Significant New Alternatives Policy Program ("SNAP"): Docket No. A-91-42 (June 18, 1993).

A-91-42

IV-D-30

elf atochem
ATO

Elf Atochem North America, Inc.
Three Parkway, Philadelphia, PA 19102
Tel: (215) 587-7000

June 18, 1993

VIA FEDERAL EXPRESS

Docket No. A-91-42
U.S. Environmental Protection Agency
Central Docket Section
South Conference Room 4
401 M Street, SW
Washington, DC 20460
Attn: Air Docket Clerk

Re: Comments on the Proposed Significant New Alternatives Policy Program ("SNAP"): Docket No. A-91-42

Dear Sir or Madam:

Elf Atochem North America, Inc. ("Elf Atochem"), a manufacturer and distributor of CFCs, HCFCs and HFCs, respectfully submits its comments in response to a Notice of Proposed Rulemaking under 40 CFR Part 82, "Protection of Stratospheric Ozone," to establish a program for evaluating and regulating substitutes for the ozone-depleting chemicals being phased out under the stratospheric ozone protection provisions of the Clean Air Act (the "Act"), which program is referred to as the Significant New Alternatives Policy program ("SNAP").

1. Section 612 of the Act only authorizes the Environmental Protection Agency (the "Agency") to establish a program to evaluate and approve substances for use in particular applications. Once a substance has been approved and is in use in a particular application, the Agency's authority ceases.

With respect to substances which receive SNAP approval for a particular application, Elf Atochem proposes that the Agency agree to maintain such approval for ten years. This will ensure that industry does not expend unneccessary time and resources developing and commercializing products and will allow for an appropriate return on investment.

2. Elf Atochem supports the Agency's position that formal rulemaking should be required to remove a substance from the list of acceptable substances. Companies which have assumed a substantial investment in commercializing approved substances should be entitled to challenge the Agency's rationale for removal of such substance from the approved list.

3. Elf Atochem supports the Agency's position that substances can be added to the list of acceptable alternatives without first requesting comment on new listings.

4. Elf Atochem proposes that the Agency issue preliminary use conditions, where appropriate. Elf Atochem also supports the Agency's position that the Occupational Safety and Health Administration ("OSHA") should evaluate, establish, implement and monitor final use conditions for approved substances. The Agency would issue preliminary use conditions at the time of SNAP approval of the substance, and such approval should not be delayed pending OSHA review.

5. Elf Atochem supports the Agency's position that "potentially available" be defined to include any alternative that the Agency believes to be technologically feasible, even if not all testing has been completed and even though the substance is not being produced and sold in commercial quantities.

6. Elf Atochem supports the Agency's position that "changes in formulation" are not subject to SNAP approval.

7. The Agency has requested comments regarding the "use levels" to be allowed in research applications. Elf Atochem proposes that all research and developmental use of substances be exempt from SNAP regardless of "use levels" since such "use levels" may vary widely depending upon the new commercial product or application being tested. For example, polyurethane field trials may require a minimum use level of 20,000 pounds, whereas research of polystyrene boardstock may only require 6,000 to 10,000 pounds. This approach is consistent with TSCA PMN requirements.

8. Elf Atochem supports the Agency's position that a SNAP evaluation of applications of substances of less than 10,000 pounds per year is not necessary since such applications would have minimal impact upon ozone depletion.

9. In general, Elf Atochem opposes the extensive nature of the information required to be provided to the Agency in order to obtain approval for a substance. Elf Atochem believes that SNAP's overly burdensome and onerous requests for information will

discourage industry from seeking approval for new substances unless the Agency either reduces the scope of its request or creates a mechanism for preliminary approval of new substances prior to review of a company's complete submission.

Specifically, Elf Atochem opposes the Agency's proposal to use the "global warming potential" of a substance as a criteria for SNAP approval since no governmental policy currently exists to measure or evaluate the "global warming potential" of a particular substance.

Elf Atochem further opposes the Agency's proposal to use the "anticipated market share" or cost of a substance as a criteria for SNAP approval since such information is not relevant to SNAP's mandate to evaluate substitutes in terms of "overall risks to human health and the environment."

Because SNAP approval will be a necessary prerequisite to marketing and selling substances, Elf Atochem proposes that the Agency commit to provide a submitting company with a response that a substance is either acceptable or unacceptable within ninety (90) days of submission.

10. Elf Atochem proposes that approval of a substance for a new equipment application also constitute approval for retrofit application since such applications are substantively similar.

11. Elf Atochem proposes that formulations consisting of SNAP approved component substances should receive automatic approval from the Agency without further review. Specifically, Elf Atochem requests that the following formulations be listed as acceptable substances since the components are approved or pending substances for each particular application identified:

a. blends of HCFC 22, HFC 143a and HFC 125 should be listed as acceptable substitutes for all CFC 502 applications;

b. blends of HCFC 22, HFC 124, and HCFC 142b should be listed as acceptable substitutes for all CFC 12 or CFC 500 applications where blends of HCFC 22, HFC 152a, and HFC 124 are listed as approved substitutes;

c. blends of HCFC 142b and HCFC 141b for rigid polyurethane laminate boardstock applications;

d. blends of HCFC 142b and HCFC 141b for rigid polyurethane appliance applications;

e. blends of HCFC 142b and HCFC 141b for rigid polyurethane commercial refrigeration, spray or sandwich panel applications;

f. blends of HCFC 141b and HCFC 22 for rigid polyurethane commercial refrigeration, spray or sandwich panel applications;

g. blends of HCFC 141b and HCFC 142b for rigid polyurethane slabstock and other applications (limited to insulating and flotation foams only);

h. blends of HCFC 22 and HCFC 141b for rigid polyurethane slabstock and other applications (limited to insulating and flotation foams only); and

i. blends of HCFC 22 and HCFC 142b for all rigid polyurethane slabstock and other applications.

Respectfully submitted,
Elf Atochem North America, Inc.

Thomas E. Werkema
Director, Regulatory Affairs
Industrial Chemicals Group
(215) 587-7851

cc: Drusilla Hufford (Via Federal Express)
Substitutes Analysis and Review Branch
Stratospheric Protection Division
Office of Atmospheric Programs
Office of Air and Radiation
401 M Street, S.W. 6205J

Washington, DC 20460

Attachment C

Alliance for Responsible CFC Policy, Inc. v. EPA, No. 94-1396 (D.C. Cir., terminated Feb. 5, 2002)

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 94-1396 **September Term, 2001**

Filed On: February 5, 2002 [656132]

Alliance For Responsible CFC Policy, Inc.,
Petitioner

v.

Environmental Protection Agency,
Respondent

ORDER

Upon consideration of the respondent's response to the Order to Show Cause why this case should not be administratively terminated, and the lack of response by petitioner, it is

ORDERED, on the court's own motion, that this case be administratively terminated upon the docket of the court. Such action is without prejudice to the reopening of the case by any party at any time upon the filing of a motion identifying the issues remaining to be litigated before the court.

No mandate of the court issues in connection with an administrative termination.

FOR THE COURT:
Mark J. Langer, Clerk

BY:

Deputy Clerk

CERTIFICATE OF PARTIES AND AMICI

Pursuant to D.C. Circuit Rules 35(c) and 28(a)(1)(A), Intervenor Natural Resources Defense Council certifies that the parties in these consolidated cases are:

Petitioners:	No. 15-1328: Mexichem Fluor, Inc.; No. 15-1329: Arkema, Inc.
Respondent:	United States Environmental Protection Agency
Respondent-Intervenors:	Chemours Company FC, LLC; Honeywell International, Inc.; Natural Resources Defense Council
Amici:	A group of administrative law professors and a group of states have indicated their intent to request invitations of the Court to participate as amici curiae.

/s/ *David Doniger*

Dated: September 22, 2017

CORPORATE DISCLOSURE STATEMENT

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and Circuit Rule 26.1, Intervenor Natural Resources Defense Council (NRDC) states that it is a not-for-profit non-governmental organization whose mission includes protection of public health and the environment and conservation of natural resources. The Natural Resources Defense Council has no outstanding shares or debt securities in the hands of the public, and no parent, subsidiary, or affiliate that has issued shares or debt securities to the public.

/s/ *David Doniger*

Dated: September 22, 2017