United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued April 21, 2022 Decided July 26, 2022

No. 21-1201

PROHIBITION JUICE CO.,
PETITIONER

v.

UNITED STATES FOOD AND DRUG ADMINISTRATION,
RESPONDENT

Consolidated with 21-1203, 21-1205, 21-1207

On Petitions for Review of an Order
of the Food & Drug Administration

Jerad Wayne Najvar argued the cause and filed the briefs for petitioners.

J. Gregory Troutman was on the brief for *amici curiae* 36 National and State Electronic Nicotine Delivery System Product Advocacy Associations in support of petitioners.

Scott P. Kennedy, Trial Attorney, U.S. Department of Justice, argued the cause for respondent. With him on the brief were *Brian M. Boynton*, Principal Deputy Assistant Attorney

General, and *Hilary K. Perkins*, Assistant Director. *Courtney Dixon*, *Kathleen Gilchrist*, *Alisa B. Klein*, *Joshua M. Koppel*, and *Lindsey Powell*, Attorneys, entered appearances.

William B. Schultz and *Andrew N. Goldfarb* were on the brief for *amici curiae* Medical and Public Health Groups in support of respondent.

Before: HENDERSON, PILLARD, and KATSAS, *Circuit Judges*.

Opinion for the Court filed by *Circuit Judge* PILLARD.

Concurring opinion filed by *Circuit Judge* KATSAS.

PILLARD, *Circuit Judge*: More than 3.6 million young people in the United States reported using e-cigarettes in 2020, including nearly one in five high school students. That makes e-cigarettes "the most widely used tobacco product among youth by far." FDA, *Technical Project Lead (TPL) Review of PMTAs* (2021) (FDA Technical Review), at 6. The public health consequences are dire: Tobacco is quickly and powerfully addicting, and e-cigarettes can permanently damage developing adolescent brains, cause chronic lung diseases, and hook young users for life. Given the scale and severity of the problem, by 2018 the Surgeon General had already decried an "epidemic" of youth e-cigarette use.[1] And

[1] Surgeon General of the United States Public Health Service, *Surgeon General's Advisory on E-cigarette Use Among Youth* (Dec. 2018), https://www.cdc.gov/tobacco/basic_information/e-cigarettes/surgeon-general-advisory/pdfs/surgeon-generals-advisory-on-e-cigarette-use-among-youth-2018-h.pdf [https://perma.cc/3FPK-7MRL]; *see also* Scott Gottlieb, *Statement from FDA Commissioner Scott Gottlieb, M.D., on New Steps to Address Epidemic of Youth E-*

the FDA declared in 2021 that "preventing tobacco use initiation in young people is a central priority for protecting population health." FDA Technical Review at 6.

Flavored tobacco products lie at the heart of the problem. A vast body of scientific evidence shows that flavors encourage youth to try e-cigarettes and, together with the nicotine, keep them coming back. With names like Brain Freeze Caramel Cone, Crazy Bubble Grape, and Green Apple Gummy Guts, flavors play a "fundamental role" in driving youth interest in e-cigarette use. FDA Technical Review at 8. The FDA has concluded that the availability of flavored products "is one of the primary reasons for the popularity of [e-cigarettes] among youth." *Id.* at 6.

Congress has called on the FDA to regulate e-cigarette products pursuant to the Family Smoking Prevention and Tobacco Control Act, Pub. L. No. 111-31, 123 Stat. 1776 (2009) (Tobacco Control Act or Act). Under the Act, manufacturers must apply for FDA authorization to sell new tobacco products, which the FDA grants only if it determines that doing so would be "appropriate for the protection of the public health." 21 U.S.C. § 387j(c)(2)(A). The agency makes that determination by weighing, on a population-wide basis, any benefits of such products against their harms. *Id.* § 387j(c)(4).

Prohibition Juice makes flavored liquids containing nicotine derived from tobacco, which it sells for use in e-cigarettes, or Electronic Nicotine Delivery Systems (ENDS).

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cigarette Use (Sept. 11, 2018), https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-new-steps-address-epidemic-youth-e-cigarette-use [https://perma.cc/RL2A-4Y8F].

Along with the three other e-liquid manufacturer petitioners, Prohibition applied in September 2020 for FDA authorization to market several flavors in a range of sizes. The FDA denied those applications a year later.[2] In view of flavored tobacco products' serious, well-documented, and lasting risks to youth, the FDA requires applicants to present reliable evidence of robust public health benefits exceeding known risks. The manufacturers describe their products as a beneficial alternative to combustible cigarettes that offer comparative health benefits to existing smokers. Finding the manufacturers had presented insufficient evidence that their flavored products are more effective than unflavored products in helping adult cigarette smokers decrease or quit harmful tobacco uses, the FDA denied the applications.

The manufacturers petition for review of those denials. They first argue that the FDA lacked statutory authority to require that parties establish that their flavored liquids carry greater public health benefits than unflavored liquids. They also challenge the application denials as arbitrary and capricious, asserting that the FDA (1) departed from an earlier guidance document, changing both the types of evidence the agency would accept and the substantive showing it expected parties to make; (2) underscored the potential importance of marketing plans including measures to limit youth access to their products but then failed to consider the plans petitioners submitted; and (3) overlooked various other aspects of the problem.

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[2] The FDA applied a common Technical Project Lead memorandum to the four manufacturers' applications, and the record includes four copies, as sent to each of four petitioners. *See* J.A. 34-53, 819-38, 1016-34, 1223-42.

We deny the petitions for review. The FDA plainly had statutory authority under the Tobacco Control Act to regulate as it did. As to the arbitrary and capricious challenges, we hold that the FDA did not change the evidentiary or substantive standard from its 2019 Guidance. We also hold that any error in the FDA's failure to consider the marketing plans was harmless because the manufacturers failed to identify how individualized review of the plans they submitted could have made any difference. Finally, the FDA did not otherwise fail to consider important aspects of the problem. We accordingly deny the petitions for review.

I. BACKGROUND

A. Statutory Background

In 2009, Congress enacted the Tobacco Control Act to regulate the sale of tobacco products. Pub. L. No. 111-31, 123 Stat. 1776. Congress concluded that the "use of tobacco products by the Nation's children is a pediatric disease of considerable proportions that results in new generations of tobacco-dependent children and adults." *Id.* § 2, 123 Stat. at 1777. We canvassed the history of the Tobacco Control Act in *Nicopure Labs, LLC v. FDA*, 944 F.3d 267 (D.C. Cir. 2019), where we recounted that Congress acted based on extensive evidence that tobacco is widely used, highly addictive, and destructive of human health. *See id.* at 270-79. The enacting Congress knew that kids are key: The FDA had already shown that the vast majority of adults who smoke have their first cigarette before the age of 18, and that "[v]irtually all new users of tobacco products are under the minimum legal age to purchase such products." *Id*. at 272 (quoting the Tobacco Control Act, Pub. L. No. 111-31, §§ 2(3), (4), 123 Stat. at 1777 (alteration in original)). Businesses seeking to make a profit selling tobacco products know that, too, and face powerful

economic incentives to reach younger customers. A core objective of the Tobacco Control Act is to "ensure" tobacco products will not be "sold or accessible to underage purchasers." Pub. L. No. 111-31, § 3(7), 123 Stat. at 1782.

Under the Act, a "new tobacco product" may not be marketed in interstate commerce unless the manufacturer obtains premarket authorization from the FDA. 21 U.S.C. § 387j(a)(1)-(2). The FDA in turn "shall deny" an application to market a new tobacco product unless the agency finds "that permitting such tobacco product to be marketed would be appropriate for the protection of the public health." *Id.* § 387j(c)(2). The statute explains how the FDA is to determine whether approving a product is, on balance, appropriate for the protection of public health:

> For purposes of this section, the finding as to whether the marketing of a tobacco product for which an application has been submitted is appropriate for the protection of the public health shall be determined with respect to the risks and benefits to the population as a whole, including users and nonusers of the tobacco product, and taking into account—
>
> (A) the increased or decreased likelihood that existing users of tobacco products will stop using such products; and
>
> (B) the increased or decreased likelihood that those who do not use tobacco products will start using such products.

Id. § 387j(c)(4)(A)-(B).

That statutory directive reflects the fact that tobacco is highly addictive and generally harmful to human health. Proof that a new tobacco product has public health benefit thus depends on favorable substitution effects, such as evidence that the new product is less harmful to existing users than current products, and that it either draws existing users away from the more harmful tobacco products or helps them to quit altogether. Any such benefit must be shown to offset the product's public health harms to new users, including youth.

The statute also directs manufacturers to include in their applications "full reports of all information . . . concerning investigations which have been made to show the health risks of such tobacco product and whether such tobacco product presents less risk than other tobacco products." *Id.* § 387j(b)(1)(A). The Act grandfathered tobacco products on the market as of February 15, 2007, excusing them from the premarket authorization requirement. *Id.* § 387j(a)(1). But no product brought to market after that date may lawfully be sold unless and until it receives FDA premarket authorization.

B. Regulatory Background

Electronic cigarettes subject to the Tobacco Control Act deliver nicotine to their users by vaporizing a liquid derived from tobacco. *See Nicopure Labs*, 944 F.3d at 270, 272. These devices are either disposable (closed) or refillable (open). Open systems are refilled either by inserting a pod or cartridge containing the liquid into the device or by manually pouring in the liquid. For current purposes, the liquids inside those devices are treated as either non-flavored, meaning they taste like tobacco, or as flavored because they carry a distinctive, often sweet, flavoring. Flavored liquids are the subject of this challenge. The FDA is separately addressing applications for menthol-flavored devices, *see* FDA Technical Review at 3 n.ii,

and is re-evaluating whether it mistakenly included some tobacco- and menthol-flavored products in the denial order challenged here, *see* FDA Br. 16 n.6. (This opinion does not address those products.)

A hallmark of flavored liquids is their disproportionate appeal to children. The FDA cited clear scientific consensus that such products hold "extraordinary popularity" among youth. FDA, *Enforcement Priorities for Electronic Nicotine Delivery Systems (ENDS) and Other Deemed Products on the Market Without Premarket Authorization (Revised)* (2020) (2020 Guidance). One study found that 93.2% of youth e-cigarette users and 83.7% of young adult users (ages 18-24) reported their first e-cigarette was flavored, and 84.7% of high school e-cigarette users reported using a flavored product in 2020. FDA Technical Review at 6. The agency also surveyed compelling evidence that youth are more likely than adults to use flavored products. *Id.* It accordingly concluded that, for flavored products, "the risk of youth initiation and use is substantial." *Id.* at 10.

In view of flavored tobacco products' appeal to young people, it is especially challenging for marketers to make a case that those products are appropriate for the protection of public health. Applicants seeking to market e-cigarettes have generally sought to show that their products cause users of existing, less safe tobacco products to transition to safer use patterns without enticing new users, especially children. That is, again, because the FDA may approve a new product only if the applicant succeeds in showing that its benefits to the population as a whole outweigh its risks.

In 2016, the FDA promulgated a "deeming rule" designating e-cigarettes and their component e-liquids as "new

tobacco products" under the Act.[3] That means Prohibition Juice and other e-liquid manufacturers may not lawfully market their products without FDA approval. We rejected a challenge to that deeming rule in *Nicopure Labs*, sustaining both the Tobacco Control Act and its application to e-cigarettes. 944 F.3d at 272.

As a matter of enforcement discretion, however, the FDA announced it would not enforce the Act against new (post-2007) products for staggered two-to-three-year periods. *See* Deeming Rule, 81 Fed. Reg. at 28,977-78. Following a further FDA extension in 2017 of up to six years, a suit by the American Academy of Pediatrics garnered a court-ordered deadline, which in turn was adjusted due to the COVID-19 pandemic. *See Am. Acad. of Pediatrics v. FDA*, 399 F. Supp. 3d 479, 487 (D. Md. 2019), *appeal dismissed sub nom. In re Cigar Ass'n of Am.*, 812 F. App'x 128 (4th Cir. 2020). The deadline for manufacturers to submit their marketing applications ultimately settled on September 9, 2020. *See Breeze Smoke, LLC v. FDA*, 18 F.4th 499, 504 (6th Cir. 2021). Meanwhile, a wave of new e-cigarette products flooded the market without scientific review or premarket authorization, causing e-cigarette use to hit the highest levels ever seen. *See* 2020 Guidance at 6-9.

Central to the manufacturers' claims is a nonbinding guidance document the FDA issued in 2019 to help manufacturers prepare applications ahead of the deadline. FDA, *Premarket Tobacco Product Applications for Electronic*

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[3] *See* Deeming Tobacco Products to Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Restrictions on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products (Deeming Rule), 81 Fed. Reg. 28,974 (May 10, 2016).

Nicotine Delivery Systems: Guidance for Industry (June 2019) (2019 Guidance). Prohibition Juice highlights two pieces of that guidance. First, it points to the FDA's discussion of the types of evidence that applicants should consider submitting. 2019 Guidance at 12-13. In relevant part, the agency wrote:

> Given the relatively new entrance of [e-cigarettes] on the U.S. market, FDA understands that limited data may exist from scientific studies and analyses. If an application includes, for example, information on other products (e.g., published literature, marketing information) with appropriate bridging studies, FDA intends to review that information to determine whether it is valid scientific evidence sufficient to demonstrate that the marketing of a product would be [appropriate for the protection of public health]. Nonclinical studies alone are generally not sufficient to support a determination that permitting the marketing of a tobacco product would be appropriate for the protection of the public health. Nonetheless, in general, FDA does not expect that applicants will need to conduct long-term studies to support an application.

2019 Guidance at 12-13 (footnote omitted).

Second, the manufacturers focus on how the agency recommended that applicants compare their products to other tobacco products to help identify and account for their own product's relative health risks. In a section titled "Comparison Products," the agency wrote:

> As part of FDA's consideration under 910(c)(4) of the FD&C Act of the risks and benefits of the marketing of the new tobacco product to the

> population as a whole, including users and nonusers of tobacco products, FDA reviews the health risks associated with changes in tobacco product use behavior (e.g., initiation, switching, dual use, cessation) that are likely to occur with the marketing of the new tobacco product. We recommend an applicant compare the health risks of its product to both products within the same category and subcategory, as well as products in different categories as appropriate. . . . This comparative health risk data is an important part of the evaluation of the health effects of product switching. . . . For example, for [an application] for an e-liquid, FDA recommends the product's health risks be compared to those health risks presented by other e-liquids used in a similar manner.

2019 Guidance at 13-14.

The FDA followed up with a 2020 guidance document setting out the agency's enforcement priorities. FDA, *Enforcement Priorities for Electronic Nicotine Delivery Systems (ENDS) and Other Deemed Products on the Market Without Premarket Authorization (Revised)* (2020) (2020 Guidance). The FDA issued that guidance after industry manufacturers, at FDA's urging, had identified a variety of measures, including age verification, they said they would use to try to restrict minors' access to their products. *See* 2020 Guidance at 7. The 2020 Guidance emphasized that, notwithstanding such measures, youth e-cigarette use "has hit the highest levels ever recorded." *Id.* at 8. With the rising wave of youth vaping, the "extraordinary popularity" of flavored products driving that rise, and industry's measures proving insufficient to stem it, the FDA announced that flavored products would be an enforcement priority. *Id.* at 13, 18-21.

As a result, by the September 9, 2020, deadline for submitting applications, the FDA had publicly highlighted the particular dangers of flavored products and noted the types of rigorous scientific evidence it would accept in support of applications to market such products. The FDA received applications from more than five hundred companies, many submitted shortly in advance of that deadline, including those of the four petitioners here. Enforcement was suspended for an additional year following the deadline to allow the FDA time to review and act on the applications. *See* Deeming Rule, 81 Fed. Reg. at 28,9778.

C. Procedural History

Prohibition Juice, ECig Charleston L.L.C., Cool Breeze L.L.C., and Jay Shore Liquids L.L.C. manufacture flavored e-liquid products. In September 2020, the manufacturers applied for approval to market a large set of variously flavored e-liquid products. A small sampling of the flavors the manufacturers seek to sell includes Prohibition Juice's Boozehound, Sweet Thang, White Lightning, and Black Market (J.A. 3-24); Cool Breeze's Awesome Sauce (Peach, Raspberry, Strawberry), Brain Freeze Caramel Cone, Buncha Crunch (Crunch Fruit Cereal), Crazy Bubble Grape, Giggle Juice, Jolly Apple, and Sugar Rush Peach Ring Candy (J.A. 472-807); ECig's Cinnamon Pear, Banana Strawberry, Cloud Chaser, and Fireball Cinnamon (J.A. 986-1006); and Jay Shore's Blueberry Dream Cake, Green Apple Gummy Guts, Pink-Burst, and Rootbeer Float (J.A. 1197-213).

Each manufacturer submitted a marketing plan as part of its application. *See* J.A. 268-76 (Prohibition); J.A. 861-64 (Cool Breeze); J.A. 1036-41 (ECig); J.A. 1264-77 (Jay Shore). The marketing plans described measures each manufacturer

was taking to limit youth access to their products. *See* Pet'rs Br. at 39. As examples, the manufacturers highlighted their use of age-verification "gating" on their websites (accepting any qualifying birthdate) and "dull, less vibrant colors" without "mascots and similar characters" on their labeling to avoid appealing to youth. *Id.* (internal quotation omitted). Other e-cigarette companies are developing novel technologies, such as requiring age verification assisted by facial recognition software to unlock their products, which they assert could prevent underage use. The FDA noted those developments and explained that it communicates with tobacco companies to keep abreast of measures that might better control youth access to their products. *See* Oral Argument Tr. at 31-32. Petitioners acknowledge that their marketing plans proposed no such novel controls. *See* Oral Argument Tr. at 12.

In September 2021, the FDA denied petitioners' applications. It did so based on a common memorandum it issued to all four manufacturers setting out the analytic framework under which the agency assessed their applications. It also issued each manufacturer a separate denial letter and review memorandum.

The FDA's common memorandum began by surveying the well-known risks of flavored electronic nicotine delivery systems to youth. FDA Technical Review at 4-9. It noted the data showing dramatic and accelerating rates of youth use of e-cigarette products, notwithstanding the decrease in cigarette smoking by youth. *Id.* at 4-7. The memorandum also referenced evidence that flavors drive youth uptake, intensity of use, and addiction, and that flavored products appeal more to youth than they do to adults. *Id.* The FDA surveyed the substantial damage nicotine causes to the adolescent brain. *Id.* at 8-9. It emphasized that the youth preference for flavor remained "consistent" across different types of devices. *Id.* at

7. While there may be "variability" in the popularity of different device types among youth, young people consistently use whichever products will allow them to enjoy flavors that appeal to them—evidence the FDA described as "underscoring the fundamental role of flavor in driving appeal." *Id.* at 7-8. Based on this evidence, the FDA concluded that flavored e-liquids "pose a significant risk to youth." *Id.* at 9.

The FDA then considered how best to weigh that known risk against potential benefits to adult smokers. It concluded that "any risks posed by a new product to youth would need to be overcome by a sufficient benefit to adult users, and as the known risks increase, so too does the burden of demonstrating a substantial enough benefit." FDA Technical Review at 10. And because flavored products carry a "substantial" risk of youth initiation, the FDA determined that such products would be approved only if a manufacturer could show "that the significant risk to youth could be overcome by likely benefits substantial enough such that the net impact to public health would be positive." *Id.* In sum, the FDA required that manufacturers produce evidence that is scientifically rigorous; compares flavored liquids to non-flavored liquids; and establishes that flavored products have substantial benefits over non-flavored ones to fully overcome flavored products' known risks.

In separate denial orders to each manufacturer, the FDA explained how each had failed to make that showing. The FDA concluded that the manufacturers had not submitted rigorous evidence demonstrating benefits of their flavored products as compared to unflavored products—be that evidence from randomized controlled trials, longitudinal studies, or some other form of analysis. Without reliable, probative evidence of benefits outweighing the products' known risks, the FDA denied the applications.

The FDA also declined to review the manufacturers' marketing plans, stating its rationale in a footnote:

> Limiting youth access and exposure to marketing is a critical aspect of product regulation. It is theoretically possible that significant mitigation efforts could adequately reduce youth access and appeal such that the risk for youth initiation would be reduced. However, to date, none of the [applications] that FDA has evaluated have proposed advertising and promotion restrictions that would decrease appeal to youth to a degree significant enough to address and counter-balance the substantial concerns, and supporting evidence, discussed above regarding youth use. Similarly, we are not aware of access restrictions that, to date, have been successful in sufficiently decreasing the ability of youth to obtain and use [e-cigarettes]. Accordingly, for the sake of efficiency, the evaluation of the marketing plans in applications will not occur at this stage of review, and we have not evaluated any marketing plans submitted with these applications.

FDA Technical Review at 11 n.xix.

The manufacturers timely petitioned this court for review, and we consolidated the cases.

D. Decisions in Parallel Cases

Under the Tobacco Control Act's judicial review provision, a party subject to a marketing denial order may petition for review either in this court or in the circuit in which its principal place of business is located. *See* 21 U.S.C.

§ 387*l*(a)(1)(B). Other manufacturers have sought review in other circuits of orders denying approval to market flavored ENDS, with some courts denying and others granting stays of enforcement pending review. *See Breeze Smoke, LLC v. FDA*, 18 F.4th 499 (6th Cir. 2021) (opinion denying stay), *cert. denied*, 142 S. Ct. 638 (2021) (mem.); *My Vape Order v. FDA*, No. 21-71302, ECF No. 18 (9th Cir. 2021) (order denying stay of enforcement); *Gripum LLC v. FDA*, No. 21-2840, 2021 WL 8874972 (7th Cir. Nov. 4, 2021) (order granting stay), *Bidi Vapor LLC v. FDA*, No. 21-13340-DD (11th Cir. Feb. 1, 2022) (order granting stay).

To date, only the Fifth Circuit has reached the merits of FDA denial orders like those challenged here. On the eve of issuance of this opinion, that court in *Wages & White Lion Investments, LLC d/b/a Triton v. FDA* (*Triton*), No. 21-60766, 2022 WL 2799797 (July 18, 2022), denied two e-liquid manufacturers' petitions for review. *Id.* at *1. The court rejected as "blatantly wrong" the manufacturers' contention that the Tobacco Control Act does not authorize the FDA to consider comparative cessation benefits of flavored over unflavored or tobacco-flavored products. *Id.* at *4. And the court denied the manufacturers' various arbitrary and capricious challenges. *See id.* at *5-11. It held that the FDA adequately explained the shortcomings of the manufacturers' study, considered relevant differences between "open" and "closed" e-cigarette device types, did not assess applications under evidentiary or substantive requirements different from those communicated to the regulated parties, and adequately justified its decision not to review the manufacturers' marketing plans (or, alternatively, committed only harmless error). *Id.* The court accordingly denied the manufacturers' petitions for review. *Id.* at *11.

Judge Jones dissented on the ground that, in her view, the orders are arbitrary and capricious. *Id.* at *12-19; *see* 16 F.4th 1130 (5th Cir. 2021) (motions panel granting stay on similar reasoning). She would have held the FDA's decision to not review the manufacturers' marketing plans "obviously illogical and unreasonable," 2022 WL 2799797 at *16, and rejected the majority's view that any error was harmless, *id.* at *17. She also would have held that the FDA took a "meandering administrative course" that, without notice, altered the substantive and evidentiary requirements manufacturers were expected to meet. *Id.* at *18. Her analysis tracked that of the earlier motions panel in the same case, which had stayed the FDA's order and held the manufacturers were likely to succeed on their arbitrary and capricious claims. *See id.* at *16 (quoting and citing 16 F.4th at 1137).

The only other published opinion to date on flavored ENDS product marketing orders is the Sixth Circuit's opinion in *Breeze Smoke, LLC v. FDA*, denying an e-liquid manufacturer's petition for a stay based on its failure to show a likelihood of success. 18 F.4th at 503. For reasons later adopted by the Fifth Circuit merits panel in *Triton*, the court sustained the FDA's determination that Breeze failed to meet its evidentiary requirements, explaining that the FDA's statement in its 2019 Guidance that it was willing to "consider" additional forms of evidence did not require it to accept such evidence as sufficient to meet the statute's requirement. *Id*. at 507. Relatedly, the court was unpersuaded that the FDA's Guidance had changed applicants' evidentiary burden without notice. The agency, the court observed, has consistently required applicants to submit randomized controlled trials, longitudinal studies, or other similarly rigorous evidence. *Id*. at 506-07. Commenting that the FDA probably should have more thoroughly considered applicants' marketing and youth prevention plans or better explained why it did not, the court

held that potential shortcoming did not in any event establish a likelihood of success to justify a stay. *Id*. at 507-08.

II. DISCUSSION

A. Jurisdiction, Standing, and Standard of Review

The Tobacco Control Act confirms our jurisdiction to review the FDA's denial orders. *See* 21 U.S.C. § 387*l*(a)(1)(B). And the manufacturers have standing to challenge the FDA's marketing denial orders, which deny them the authorization the Tobacco Control Act requires before they may lawfully sell their products.

The manufacturers assert that the FDA exceeded its statutory authority under the Tobacco Control Act by requiring applicants to show their flavored e-liquids carry sufficiently greater benefits than non-flavored e-liquids to outweigh their relatively greater risks. Because we conclude the statute is best read to support the FDA's action, we need not consider whether or how much deference to accord its interpretation. The manufacturers also argue that the FDA's denial order was arbitrary and capricious in several respects. We review such challenges to the FDA's exercise of its Tobacco Control Act authority under the ordinary APA standard of review. 21 U.S.C. § 387*l*(b) (citing 5 U.S.C. § 706(2)(A)). Under section 706 we assess whether the agency offered a "satisfactory explanation for its action" and hold arbitrary and capricious explanations that "entirely fail[] to consider an important aspect of the problem." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). In so doing, we must "judge the propriety of [an agency's] action solely by the grounds invoked by the agency." *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947). Our review incorporates the APA's prejudicial error rule, under which the "burden of showing that

an error is harmful normally falls upon the party attacking the agency's determination." *Shinseki v. Sanders*, 556 U.S. 396, 409 (2009) (citing 5 U.S.C. § 706).

B. Challenge to FDA's Statutory Authority

Congress directed the FDA to authorize the marketing of only those new tobacco products that an applicant has shown "would be appropriate for the protection of the public health." 21 U.S.C. § 387j(c)(2)(A). The distinct public health hazards of flavored tobacco products, especially to young people, are extensively documented. Given those risks, purveyors of flavored products cannot show they are appropriate in public health terms without establishing that they have substantial public health benefits that overcome their risks. The FDA accordingly requires applicants seeking to market flavored tobacco products to show their products are more beneficial to the public health than non-flavored products.

Petitioners challenge that requirement as contrary to the Act. They assert that the FDA lacks statutory authority to consider a product's "relative effectiveness at promoting cessation of combustible cigarette use versus another product with an otherwise similar health risk profile and labeling." Pet'rs Br. at 50. But the Tobacco Control Act itself instructs that, in seeking an FDA determination that their product is appropriate for the protection of the public health, an applicant must supply "full reports of all information . . . concerning investigations which have been made to show the health risks of such tobacco product *and whether such tobacco product presents less risk than other tobacco products*." 21 U.S.C. § 387j(b)(1)(A) (emphasis added). The Act then provides that the FDA "shall deny an application . . . if, upon the basis of the information submitted . . . and any other information before the [FDA]," it concludes that the applicant has failed to "show[]

that permitting [the] product to be marketed would be appropriate for the protection of the public health." *Id.* § 387j(c)(2). In other words, the statute not only allows but expressly instructs the FDA to consider evidence regarding just the comparison that the manufacturers say the FDA lacks statutory authority to make.

The FDA acted well within that statutory directive when it compared the claimed cessation benefits of flavored and non-flavored products. The FDA has found that flavored products present greater risks than other tobacco products, based on a robust array of literature showing the dangers those products pose of hooking new users, especially youth. *See* FDA Technical Review at 5-9. Instead of stopping there and denying the applications for flavored products as comparatively risky, it addressed their asserted upsides, reasoning that a product could still be net beneficial if its large risks were overcome by larger benefits to current users. *See id.* at 10-14. By contrast, if the new product carried greater risks but no overmatching greater benefits, authorizing it would not on balance serve public health. That is precisely the type of analysis the statute calls for.

The manufacturers contend that the statutory phrase "the health risks of such tobacco product" limits the FDA to comparing only the "physiological health risks" of individual tobacco products without taking account of a "broader concept of risk that encompasses initiation and cessation behaviors." Pet'rs Reply Br. at 12-13. The statutory text is to the contrary. The degree to which a harmful product entices and addicts new users is inarguably a component of the "health risk" it poses. That is plain from Congress's express directive that the FDA determine whether a product is "appropriate for the protection of the *public* health," a population-wide inquiry. 21 U.S.C. § 387j(c)(2)(A) (emphasis added); *see also Health*, BLACK'S

LAW DICTIONARY (11th ed. 2019) (defining "public health" as "[t]he health of the community at large" or "the general body of people or the community *en masse*").

The manufacturers are wrong that the FDA applied a standard akin to or more stringent than the "safe and effective" standard to which new drugs are subject or conflated its statutory inquiry with the "modified risk tobacco products" inquiry. *See* Pet'rs Br. at 50-54 (citing 21 U.S.C. §§ 355(b)(1)(A), 387k). Those distinct standards apply to other kinds of approvals contingent on evidentiary showings that do not apply here and that the FDA did not demand. *See* 21 U.S.C. § 355(b)(1)(A) (requiring evidence that new drug is effective for therapeutic use, which the manufacturers do not claim of e-cigarette liquids); *id.* § 387k (requiring evidence substantiating specific modified risk claims, which the manufacturers do not seek to make here). Moreover, the fact that the FDA has other authorities through which it can approve other products, like those designed and approved specifically as smoking cessation products, does not release the FDA from following its statutory mandate here to approve only tobacco products the sale of which it determines "would be appropriate for the protection of the public health." 21 U.S.C. § 387j(c)(2). The manufacturers give us no persuasive reason to think that those other authorities somehow limit the inquiry the FDA may make in reaching a § 387j determination.

C. Arbitrary and Capricious Challenges

The manufacturers also contend that the FDA's denial of their marketing applications was arbitrary and capricious. They raise two principal arguments. First, they argue the FDA misdirected applicants by altering both the types of evidence it would accept and the comparison it required applicants to make. Second, they argue the FDA failed to reasonably explain

its decision not to review the manufacturers' individual marketing plans. They more briefly make a handful of other arguments, also addressed below.

We hold that the FDA did not misdirect applicants. And, assuming the FDA insufficiently explained its non-review of applicants' marketing plans, we hold that error was harmless. The manufacturers' other arbitrary and capricious challenges fail as well. We accordingly deny the petitions for review.

1. The "Surprise Switcheroo" Challenge Fails

The manufacturers argue that the FDA's 2019 Guidance rendered its denial orders arbitrary and capricious because the guidance steered them astray. Agencies must explain changes in position, particularly once a prior position has engendered regulated parties' reliance. *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514-16 (2009); *PHH Corp. v. CFPB*, 839 F.3d 1, 44-49 (D.C. Cir. 2016), *vacated and reinstated in relevant part*, 881 F.3d 75, 83 (D.C. Cir 2018) (en banc). The manufacturers assail the FDA's denial orders as departing from its 2019 Guidance in two ways: They argue the FDA (1) changed the types of evidence it expected applicants to produce, and (2) changed the substantive comparison it expected applicants to make. Because those changes conflicted with the 2019 Guidance, the manufacturers say, the FDA acted without fair notice of the requirements their applications had to meet to gain approval. *See* Pet'rs Reply Br. at 3 (citing *SNR Wireless LicenseCo., LLC v. FCC*, 868 F.3d 1021, 1043 (D.C. Cir. 2017)).

The manufacturers' notice claim effectively boils down to an assertion that the FDA's 2019 Guidance affirmatively misdirected them. They do not claim insufficient notice based on the statutory standard or the FDA's deeming rule. Indeed,

they seem to acknowledge that, had the agency not issued its 2019 Guidance, they would have no claim of inadequate notice. *See* Oral Argument Tr. at 5-6. The manufacturers instead argue that the FDA's 2019 Guidance suggested the agency would approve the type of application they filed, making its rejections unexpected and arbitrary. But the FDA's final determinations were consistent with the 2019 Guidance, undercutting their claim.

a. No change to requisite types of evidence

The manufacturers argue that the FDA without warning altered the types of evidence it would accept. Specifically, they claim that the 2019 Guidance suggested that applicants need not produce data from randomized controlled trials or longitudinal studies, and that the FDA here suddenly reversed course by effectively requiring those forms of evidence.

We disagree. The FDA did not reverse course. The 2019 Guidance said that randomized controlled trials or longitudinal studies would not be necessary if applicants submitted similarly rigorous "valid scientific evidence." 2019 Guidance at 12. In the orders under review, the agency found that these applicants' evidence was not similarly rigorous. As the Sixth Circuit reasoned in *Breeze Smoke*, the FDA said only that "it *might* accept evidence other than long-term studies, if that evidence had sufficient scientific underpinnings" to meet the statutory standard. 18 F.4th at 506-07. The FDA nowhere guaranteed that unspecified other forms of evidence would necessarily be sufficient—only that they might be, so the FDA would consider them. 2019 Guidance at 12-13.

The text of the FDA's 2019 Guidance makes that clear. The agency stated that it "intends to review" evidence in forms other than randomized controlled trials or longitudinal studies

"to determine whether it is valid scientific evidence sufficient to demonstrate that" the statutory standard is met. 2019 Guidance at 12. The FDA thereby broadened the types of evidence it would consider: Instead of limiting applicants to the two types of evidence it usually requires, the agency allowed manufacturers to submit evidence in other forms. But at the same time the agency made clear it would not relax the scientific rigor of the requisite public health demonstration. The agency's finding that the evidence was insufficiently rigorous does not reflect a changed standard, but the manufacturers' failure to meet the standard the agency consistently applied.

Nor did the FDA act arbitrarily and capriciously by finding the manufacturers' evidence insufficiently rigorous. Prohibition Juice's own literature review concluded that "there is not enough evidence from well-designed studies to determine whether e-cigarette flavors aid in smoking cessation." J.A. 469. The manufacturers argue that the FDA failed to credit data they collected through online voluntary surveys. But the FDA explained that one-time assessments and consumer perception surveys "do[] not enable reliable evaluation of behavior change over time" and that their lack of product-specific comparisons deprive them of probative weight. FDA Technical Review at 12-13. The FDA accordingly concluded that, "in contrast to the evidence related to youth initiation—which shows clear and consistent patterns of real-world use that support strong conclusions—the evidence regarding the role of flavors in promoting switching among adult smokers is far from conclusive." *Id.* at 11. Considered in light of the evidence before the agency, that conclusion was entirely reasonable.

The manufacturers argue that, even if the FDA nominally claimed it would accept other evidence, the agency effectively

engaged in an arbitrary "fatal flaw" analysis to reject applications lacking either of the two leading types of evidence. Pet'rs Br. at 16. As they see it, the FDA in practice considered only whether applicants had submitted data from randomized controlled trials or longitudinal cohort studies. *Id*. But the material the manufacturers rely on itself directly refutes that characterization.

First, they point to the check-box forms the FDA used to assess applications. But they omit that those forms looked beyond randomized trials and longitudinal studies to list a third category of potential support: "Other evidence in the [application] related to potential benefit to adults." *See* J.A. 32-33, FDA Br. at 43. The manufacturers' problem, per that document, was not their failure to include longitudinal or randomized controlled studies. It was their failure to include, as the FDA consistently required, studies sufficiently rigorous to show a benefit of flavored e-cigarette products sufficient to overcome their risks.

Second, the manufacturers point to an internal agency guidance memorandum dated July 9, 2021, as evidence of this fatal flaw approach. *See* J.A. 159-60. The July memorandum's prediction that applications lacking evidence from randomized controlled trials or longitudinal studies would "likely" be denied did not necessarily foreclose reliance on other forms of rigorous evidence. *Id*. at 160. In any event, the FDA replaced that memorandum the next month, on August 17, 2021, with superseding guidance that expressly required the agency to consider other forms of evidence if sufficiently robust. *See* J.A. 161-62; *see also* J.A. 162 n.ix. That August memorandum preceded the FDA's rejection of petitioners' applications.

The manufacturers also contend the FDA imposed an evidentiary "double standard" by using literature reviews as

evidence for flavored products' risks but eschewing literature reviews as evidence of their benefits. The FDA explained that its treatment of various materials depended on the nature and conclusiveness of the findings they reported. From its study of reviews of the scientific evidence on the risks of flavored products, the agency concluded that those risks "are understood as a matter of scientific consensus." *Breeze Smoke*, 18 F.4th at 508; *see* FDA Technical Memorandum at 11 (noting that risks to youth are "clear and consistent"). But the reports of evidence of flavored products' benefits, the agency found, were "far from conclusive" and "quite mixed," particularly due to relevant differences from product to product. FDA Technical Memorandum at 11. The agency reasonably drew differing conclusions from evidence of differing strength.

Finally, the manufacturers urge us to adopt the reasoning of the Fifth Circuit panel in its decision to grant a stay in *Triton*. That stay was in place as this case was briefed and argued, but has been superseded by the decision on the merits. Nonetheless, we consider on its own terms and are unpersuaded by the stay panel's analysis. *See* 2022 WL 2799797 at *5-11; 18 F.4th at 506-07. The stay panel, and merits dissent in accord, over-read the FDA's statement that it would consider evidence other than long-term studies as announcing that "long-term studies were likely unnecessary." 16 F.4th 1140-41. Against that asserted baseline, the stay opinion concluded that the FDA's rejection of Triton's application showed the agency "changed its mind and required the very thing it said it would not—namely, long-term studies of e-cigarettes." *Id*. at 1135. But again, the FDA has all along required "valid scientific evidence," and its denial orders explained how the survey data petitioners submitted fell short of the mark.

b. No change to substantive standard

The manufacturers also argue that the FDA pulled a bait-and-switch of the substantive standard it applied in reviewing their applications. *See* Pet'rs Reply Br. at 4-8. The manufacturers argue they relied on the FDA's 2019 Guidance, which included a section describing the types of "comparison products" applicants should reference to show their products' benefits. *See* 2019 Guidance at 13-14. There, the FDA emphasized that applicants should compare their products to "tobacco products in the same category or subcategory." *Id.* at 13. But the manufacturers claim they were unfairly surprised to see the FDA explain in its denial order that it looked for evidence "that could potentially demonstrate [an] added benefit to adult users of flavored ENDS [electronic nicotine delivery system] over an appropriate comparator tobacco-flavored ENDS." Pet'rs Reply Br. at 5 (citing J.A. 47, 823, 1029, 1236). The manufacturers contend that "nobody reading [the 2019 Guidance] would believe that it was necessary to compare a particular e-liquid to a tobacco-flavored e-liquid," *id.* at 6-7, and that accordingly "FDA flunked Petitioners for failing to answer a question that it never even asked," *id.* at 8. They claim that doing so both worked a change to the substantive standard of review and upset their interest in reliance on the old standard.

This argument is far off base. The governing statute expressly asks for evidence concerning whether an applicant's "tobacco product presents less risk than other tobacco products," 21 U.S.C. § 387j(b)(1)(A), and the FDA's 2019 Guidance told manufacturers that the agency would look for comparisons between the proposed product and "tobacco products in the same category or subcategory," 2019 Guidance at 13. Petitioners knew they needed to show that their flavored e-liquids were sufficiently beneficial to adult smokers to offset

the risks from flavored products' particular attractiveness to youth. It was widely known when petitioners prepared and submitted their applications that the FDA had identified e-cigarette flavors as a driver of soaring youth rates of tobacco uptake, use, and addiction. Petitioners' own unflavored or tobacco-flavored e-liquids were an obvious, otherwise-similar comparator against which to gauge whether the added risks of their flavored e-liquids are overcome by those products' added benefits to adult smokers. The manufacturers' own insistence that device type is the primary feature driving ENDS popularity among youth does not render arbitrary or surprising the FDA's attention to the relative risks and benefits of flavored versus unflavored products of the same type.

The manufacturers cannot identify any misdirection in the 2019 Guidance. The FDA's product-specific analysis in the denial orders is fully consistent with its Guidance. The 2019 Guidance identified what types of comparisons the FDA would be looking for. The denial orders applied that guidance to examine whether the added risk of these manufacturers' flavored e-liquids over otherwise-comparable products without flavoring is outweighed by greater added benefit to adult smokers of the flavored over unflavored versions. That is a straightforward application of the FDA's stated standard. There was nothing new about the FDA's review of the manufacturers' applications that deprived them of fair warning. *See Breeze Smoke*, 18 F.4th at 507. Because the 2019 Guidance gave fair notice of the analysis the agency would perform and the purpose of those comparisons, we hold the agency did not create unfair surprise by focusing on comparisons between otherwise similar flavored and nonflavored products.

2. The FDA's Decision Not to Review Each Youth Access Plan Was Immaterial

The manufacturers also argue that the FDA acted arbitrarily and capriciously by failing to reasonably explain why it did not review their individual marketing plans. They make plausible arguments that the agency erred in acting as it did without a more persuasive explanation. But the manufacturers did not show that that error prejudiced them in any way. We accordingly hold that, even assuming the FDA's explanation was error, that error was harmless.

In their briefing, and even when specifically pressed on the point at argument, the manufacturers were unable to identify any prejudice they suffered from the FDA's lack of individualized review of their plans to prevent youth access to their flavored e-liquids. The Tobacco Control Act applies the APA's standard of review, *see* 21 U.S.C. § 387*l*(b), which instructs courts to take "due account . . . of the rule of prejudicial error" and thereby incorporates a harmless error rule, 5 U.S.C. § 706; *see Nat'l Assn. of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 659-60 (2007). Under that rule, "the burden of showing that an error is harmful normally falls upon the party attacking the agency's determination." *Shinseki v. Sanders*, 556 U.S. 396, 409 (2009); *see Air Canada v. Dep't of Transp.*, 148 F.3d 1142, 1156 (D.C. Cir. 1998). When an agency's mistake plainly "had no bearing" on the substance of its decision, we do not grant a petition for review based on that mistake. *See Mass. Trs. of E. Gas & Fuel Assocs. v. United States*, 377 U.S. 235, 248 (1964).

We apply that harmless error rule consistent with *SEC v. Chenery Corp.*, which requires courts to refrain from assessing agency action on bases the agency itself did not supply. 332 U.S. at 196. "[W]ith limited exception," our circuit has noted,

Chenery "does not allow us to affirm an agency decision on a ground other than that relied upon by the agency." *Manin v. NTSB*, 627 F.3d 1239, 1243 (D.C. Cir. 2011). But "when there is not the slightest uncertainty as to the outcome of a proceeding on remand, courts can affirm an agency decision on grounds other than those provided in the agency decision." *Id.* at 1243 n.1 (quoting *Envirocare of Utah, Inc. v. Nuclear Regul. Comm'n*, 194 F.3d 72, 79 (D.C. Cir. 1999)) (formatting modified); *accord Grossmont Hosp. Corp. v. Burwell*, 797 F.3d 1079, 1086 (D.C. Cir. 2015). *Chenery*, the Supreme Court has elaborated, was designed to "assur[e] that initial administrative determinations are made with relevant criteria in mind." *Mass. Trs. of E. Gas & Fuel*, 377 U.S. at 248. When an asserted error clearly did not affect the outcome, applying *Chenery* and its progeny "would not advance the purpose they were intended to serve." *Id.* In short, "*Chenery* does not require that we convert judicial review of agency action into a ping-pong game," lobbing the matter from agency to court and back. *NLRB v. Wyman-Gordon Co.*, 394 U.S. 759, 766 n.6 (1969). Where a petitioner had ample opportunity yet failed to show that an agency error harmed it, vacatur and remand to give the agency an opportunity to fix the error is unwarranted.

The manufacturers raise serious arguments that the FDA erred in deciding not to review their marketing plans on the ground that they presented nothing new, and that its explanation for the non-review fell short insofar as the FDA assumed the contents of plans without reading them. But those plans are in the record for all to read, and they vindicate the FDA's assumption. Even the manufacturers do not claim that FDA's consideration of their marketing plans could have changed the agency's decision on their applications. The measures they highlight in their marketing plans are not materially different from those the FDA had previously found insufficient to stem the surge in youth e-cigarette use. In their

briefing and at argument petitioners identified examples of the youth access limitations they proposed and that they assert the FDA erred in not specifically reviewing. *See* Pet'rs Br. at 39; Oral Argument Tr. at 12. Yet their plans—to require customers' self-verification of age at the point of sale and to use what they characterize as less vibrant marketing unappealing to youth—track measures the FDA in its 2020 guidance deemed inadequate to prevent or otherwise materially limit youth access to flavored ENDS. *Compare* Pet'rs Br. at 39, *with* 2020 Guidance at 42-44. The manufacturers fail to explain why their proposals will prevent youth access where other, similar measures did not.

Petitioners thus cannot identify how they were harmed from the FDA's failure to consider essentially the same measures it had previously rejected. Indeed, they offered no refutation whatsoever to the FDA's pointed assertions that the manufacturers "do not claim to have proposed access measures different from those that FDA previously found inadequate," and accordingly that "there is no basis to conclude that any harm flowed from the asserted failure-to-consider error." *Compare* FDA Br. at 38-39, *with* Pet'rs Reply Br. at 8-9. In response to questioning on the point at oral argument, the manufacturers again did not identify any harm they experienced from FDA's failure to have reviewed their marketing plans, instead simply referring to the familiar and demonstrably inadequate measures listed in their opening brief. *See* Oral Argument Tr. at 12 (responding "well, no" to the question whether manufacturers' plans had proposed "anything qualitatively different" from measures the FDA had previously examined and deemed lacking); *id.* at 15 (responding "no" to the question whether manufacturers' marketing plans would alone have altered the FDA's analysis enough to warrant granting the petition, absent their other challenges to purported changing FDA guidance). In light of that failure, the

petitioners have also forfeited any argument that the alleged error prejudiced them.

We accordingly assume without deciding that the FDA erred in not individually reviewing the manufacturers' marketing plans and offering an apparently circular explanation for that approach. The manufacturers' inability to identify how the FDA's denial orders could have come out differently if only it had known the contents of their plans defeats their request for vacatur and remand to the FDA for further consideration.

3. The Other Arbitrary and Capricious Challenges Fail

None of the manufacturers' other arbitrary and capricious challenges has merit. *See* Pet'rs Br. at 34-49; Reply Br. at 8-11.

The manufacturers contend the FDA ignored a material distinction between open and closed systems. These manufacturers seek to market e-liquids used to refill open systems, and they say the FDA erred in treating public health data regarding the risks of youth access to flavored closed-system e-cigarettes as applicable to flavored products used with open systems. But the FDA did acknowledge the distinct products, noting in its denial orders that "there may be differential appeal of certain product styles." FDA Technical Memorandum at 7. The FDA then reasonably explained that it nonetheless found the scientific literature about public health risks to youth applicable to petitioners' products, because "across these different device types, the role of flavor is consistent." *Id.* The FDA cited data from the 2020 National Youth Tobacco Survey, among other sources, to support its conclusion that youth preference for flavor "is consistently demonstrated across large, national surveys and longitudinal cohort studies." *Id.*

By contrast, the FDA noted that youth preferences for different device types are "fluid," and that youth readily shift among devices. *Id.* at 8. For example, the FDA cited data showing that "the removal of one flavored product option prompted youth to migrate to another [device type] that offered their desired flavor options." *Id.* This fact "underscore[d] the fundamental role of flavor in driving appeal." *Id.* The FDA supported its conclusion with substantial evidence, and we have no basis to second-guess it.

The FDA also did not impermissibly treat like products differently, as the manufacturers contend. The FDA concedes that it inadvertently denied approval to some manufacturers who had submitted results from randomized controlled trials comparing their flavored products to non-flavored cigarettes; the agency reports that it is reconsidering those applications separately. *See* FDA Br. at 47-48; *see also* FDA 28(j) Letter (dated Apr. 13, 2022) at 2. But the manufacturers here do not contend that they submitted similar studies for their products. Accordingly, there is no inconsistency between the FDA's distinct treatment of these different applications.

Finally, the FDA was not required to consider alternative regulatory approaches before denying the manufacturers' applications for premarket approval. The statute requires that applicants make a certain showing before their products can be approved for sale and provides that, where an applicant fails to make that showing, the FDA "shall deny" the application. *See* 21 U.S.C. § 387j(c)(2)(A). After reviewing their applications, the FDA here found that these manufacturers had failed to make the requisite showing. The statute requires no more.

III. CONCLUSION

For all of the above reasons, we deny the petitions for review.

So ordered.

KATSAS, *Circuit Judge*, concurring: This case arises from the Food and Drug Administration's denial *en masse* of thousands of applications for permission to sell flavored e-cigarettes or liquid cartridges for use in flavored e-cigarettes. The FDA denied the applications primarily because flavored e-cigarettes appeal to children. Yet the agency refused even to consider any of the proposed marketing plans for these products, which bear critically on the risk that they pose to children. The FDA reasoned that because marketing plans it had previously reviewed were inadequate, the agency could simply stop reviewing the plans for other products, "for the sake of efficiency." FDA, *Technical Project Lead (TPL) Review of PMTAs* (2021), at 11 n.xix (J.A. 44). The FDA earns points for candor, but the Administrative Procedure Act requires more. As the Fifth Circuit has explained, "it's unreasonable for the FDA to stop looking at proposed [marketing] plans because past ones have been unpersuasive." *Wages & White Lion Invs., LLC v. FDA*, 16 F.4th 1130, 1137 (5th Cir. 2021); *see also Breeze Smoke, LLC v. FDA*, 18 F.4th 499, 507 (6th Cir. 2021) ("The FDA likely should have more thoroughly considered Breeze Smoke's marketing plan.").[1]

Despite the FDA's obvious error, I join the Court's opinion in full. As Judge Pillard persuasively demonstrates, the petitioners here made no serious argument that the FDA's failure to consider their marketing plans was prejudicial, as required for them to obtain relief under the APA. *See* 5 U.S.C. § 706 ("due account shall be taken of the rule of prejudicial

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[1] The Fifth Circuit later held that the FDA's failure to consider the full marketing plans at issue in *Wages & White Lion Investments* was not arbitrary. *Wages & White Lion Invs., LLC v. FDA*, No. 21-60766, slip op. at 19–23 (5th Cir. 2022); *but see id.* at 32–35 (Jones, J., dissenting). In that case, however, the FDA claimed to have reviewed at least "a summary of the marketing plans." *Id.* at 22 (majority). Here, the FDA did not claim to have done even that.

error"). Moreover, I agree that the petitioners' other arguments lack merit. In joining the Court's opinion, I do not understand it to foreclose the possibility of our finding prejudicial error in other cases where manufacturers press the prejudice point more forcefully.