No. 17-3006

In the United States Court of Appeals for the Third Circuit

JILL SIKKELEE, APPELLANT

v.

PRECISION AIRMOTIVE CORPORATION; PRECISION AIRMOTIVE LLC; BURNS INTERNATIONAL SERVICES CORPORATION; TEXTRON LYCOMING RECIPROCATING ENGINE DIVISION; AVCO CORPORATION; KELLY AEROSPACE, INC.; KELLY AEROSPACE POWER SYSTEMS, INC.; ELECTROSYSTEMS, INC.; CONSOLIDATED FUEL SYSTEMS, INC., APPELLEES

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE MIDDLE DISTRICT OF PENNSYLVANIA (CIV. NO. 07-886) (THE HONORABLE MATTHEW W. BRANN, J.)

BRIEF OF APPELLEE AVCO CORPORATION

CATHERINE SLAVIN
GORDON REES SCULLY MANSUKHANI LLP
2005 Market Street, Suite 2900
Philadelphia, PA 19103
(215) 717-4006

KANNON K. SHANMUGAM
AMY MASON SAHARIA
WILLIAMS & CONNOLLY LLP
725 Twelfth Street, N.W.
Washington, DC 20005
(202) 434-5000

CORPORATE DISCLOSURE STATEMENT

Appellee AVCO Corporation is wholly owned by Textron Inc. Textron Inc. has no parent corporation. T. Rowe Price Associates, Inc., owns 10% or more of Textron Inc.'s stock. T. Rowe Price Associates, Inc., is a privately held subsidiary of T. Rowe Price Group, Inc., which is a publicly held company. In her complaint, appellant named Textron Lycoming Reciprocating Engine Division ("Lycoming Engines") as a separate defendant. Lycoming Engines is an unincorporated operating division of appellee AVCO Corporation and is not a distinct corporate entity.

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STATEMENT OF JURISDICTION

The district court had jurisdiction under 28 U.S.C. § 1332(a). The district court entered an order on August 3, 2017, granting motions for summary judgment by appellee AVCO Corporation (hereinafter "Lycoming").[1] J.A. 154. The district court entered judgment for Lycoming on August 31, 2017. J.A. 162. Plaintiff filed a notice of appeal on September 12, 2017. J.A. 163. The jurisdiction of this Court rests on 28 U.S.C. § 1291.

STATEMENT OF THE ISSUES

1. Whether the district court correctly held that, under Pennsylvania law, Lycoming could not be liable to plaintiff regarding an allegedly defective replacement carburetor that Lycoming did not manufacture, sell, or otherwise place into the stream of commerce.

2. Whether the district court correctly held that federal law preempts plaintiff's state-law claims because the design of the aircraft components approved by the Federal Aviation Administration could not be altered without the agency's approval.

STATEMENT OF RELATED CASES AND PROCEEDINGS

Lycoming is unaware of any related cases currently pending before this Court.

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[1] AVCO is litigating on behalf of Lycoming Engines, an unincorporated operating division. Consistent with plaintiff's practice, we refer to AVCO as "Lycoming."

STATEMENT OF THE CASE

Plaintiff Jill Sikkelee, whose husband died when the aircraft he was piloting crashed, brought an action against Lycoming and other defendants in the United States District Court for the Middle District of Pennsylvania. The operative complaint asserts strict-liability and negligence claims under Pennsylvania law based on allegations that a replacement carburetor attached to the aircraft's engine in 2004—more than three decades after Lycoming manufactured the engine—was defective. Lycoming did not manufacture, sell, or supply the replacement carburetor; it was assembled by a third party with whom plaintiff has settled her claims. The Federal Aviation Administration specifically approved the design features of the replacement carburetor that plaintiff alleges to be defective. Lycoming moved for summary judgment, arguing that plaintiff's claims fail as a matter of Pennsylvania law and are preempted by federal law. The district court's decision granting those motions is correct, and its judgment should be affirmed.

A. Statutory and Regulatory Background

1. Congress enacted the Federal Aviation Act of 1958 (the Act) with the goal of creating a single, uniform system of regulation for air commerce and safety. *See* Pub. L. No. 85-726, 72 Stat. 731; *Sikkelee* v. *Precision Airmotive Corp.*, 822 F.3d 680, 684 (3d Cir.), *cert. denied*, 137 S. Ct. 495 (2016). The

Act established the Federal Aviation Agency, known today as the Federal Aviation Administration (FAA), and centralized within it "full responsibility . . . for the advancement and promotion of civil aeronautics generally, including the promulgation and enforcement of safety regulations." H.R. Rep. No. 2360, 85th Cong., 2d Sess. 1 (1958); *see* Act § 301(a), 72 Stat. 744. The Act requires the FAA to issue "minimum standards required in the interest of safety . . . for the design, material, construction, quality of work, and performance of aircraft, aircraft engines, and propellers." 49 U.S.C. § 44701(a)(1).

With respect to aircraft engines, the FAA's safety standards are codified in the Federal Aviation Regulations, 14 C.F.R. pt. 33 (2018). In keeping with the FAA's broad mandate, the standards govern everything from the durability of the engine's design and materials to the performance of fuel, ignition, and lubrication systems. *See* 14 C.F.R. §§ 33.11-33.39.

In order to ensure compliance with its safety standards, the FAA enforces a comprehensive set of regulations governing the actions of manufacturers at every stage of the supply chain. Any manufacturer wishing to produce an engine certified for use in the national airspace system (or a replacement article for a certified engine) must demonstrate that the product's design complies with all applicable standards. *See* 14 C.F.R. §§ 21.303, 33.1. Once the FAA has approved the design of a product or article, a manufacturer may not modify the design absent appropriate authorization. *See* 14 C.F.R. §§ 21.95,

21.97; FAA Order 8110.42A, Parts Manufacturer Approval Procedures, at 17-18 (1999).[2]

This case concerns the FAA-approved designs of two actors in the aviation supply chain: original equipment manufacturers (OEMs) that hold type certificates for a product, known as type-certificate holders, and manufacturers of aftermarket articles for use on type-certificated products, known as Parts Manufacturer Approval (PMA) holders. FAA regulations prescribe the procedures that both types of manufacturers must follow to obtain design approval and to implement subsequent design changes.

2. Before an aircraft engine manufacturer can produce an engine intended for use in a certified aircraft, it must obtain a type certificate and a production certificate from the FAA. *See* 49 U.S.C. § 44704(a), (c). To obtain a type certificate, an applicant submits to the FAA the designs, drawings, test reports, and computations necessary to show that the engine satisfies applicable airworthiness standards. *See* 14 C.F.R. §§ 21.15, 21.21(b). At that step, the FAA ascertains that the engine "is properly designed and manufactured, performs properly, and meets the regulations and minimum standards prescribed under [49 U.S.C. § 44701(a)]." 49 U.S.C. § 44704(a)(1).

The FAA issues a type certificate at the conclusion of this "intensive and painstaking" certification process, *Sikkelee*, 822 F.3d at 684, if it finds that the

[2] Lycoming cites the applicable FAA orders that were in effect at the time of the accident.

proposed design comports with applicable safety standards, 14 C.F.R. § 21.21(b)(1). The type certificate includes the "type design," which outlines the detailed specifications, dimensions, and materials of a given product; the product's operating limitations; a "certificate data sheet," which denotes the conditions and limitations necessary to meet airworthiness requirements; and any other conditions or limitations prescribed under FAA regulations. *See* 14 C.F.R. §§ 21.31, 21.41.

"[A] manufacturer is bound to manufacture its aircraft or aircraft part in compliance with the type certificate." FAA Amicus Br. 10-11, *Sikkelee* v. *Precision Airmotive Corp.*, No. 14-4193 (3d Cir. Sept. 21, 2015) (FAA Amicus Br.) (J.A. 1183-1184).[3] After issuance of the type certificate, the manufacturer may request both "major" and "minor" changes to a type-certificated design, 14 C.F.R. § 21.93, but it must obtain the appropriate regulatory approval before doing so. A minor change is one that has "no appreciable effect" on any "characteristics affecting the airworthiness of the product"; any other change is a major change. 14 C.F.R. § 21.93(a). Major changes require an application for an amended or supplemental type certificate from the FAA. FAA Amicus

[3] The FAA may authorize the production of "duplicate" aircraft engines if it "finds the duplicate will conform to the type certificate." 49 U.S.C. § 44704(c). That authorization, known as production certification, ensures fidelity of the final manufactured product to its approved design.

Br. 4 (J.A. 1177) (citing 49 U.S.C. § 44704(b)); *see also* 14 C.F.R. § 21.113. Minor changes are similarly subject to FAA approval, *see* FAA Amicus Br. 5 (J.A. 1178); type-certificate holders seeking to implement such changes must comply with a "method acceptable to the FAA," 14 C.F.R. § 21.95.

3. The FAA also pervasively regulates aftermarket-parts manufacturers that produce and sell replacement articles for type-certificated products. As a general matter, a manufacturer seeking to produce a replacement article must obtain a PMA. *See* 14 C.F.R. § 21.303(a) (2004); FAA Order 8110.42A, at 5. There are several ways to do so. First, a PMA applicant may show that the design of its article "is identical to" the design of an article that has been approved in a type certificate. 14 C.F.R. § 21.303. Second, the applicant may show that it obtained the design pursuant to a licensing agreement. *Id.* Third, an applicant may seek to demonstrate through "[t]est reports and computations" that the design of its article meets applicable airworthiness requirements. 14 C.F.R. § 21.303; *see also* FAA Order 8110.42A, at 13-14. Regardless of form, PMA applications require no input or approval from the type-certificate holder. The FAA has acknowledged that type-certificate holders have "no knowledge or data about the PMA . . . parts installed in the product and, therefore, can only assess the airworthiness and systems effects of their parts installed in the product." FAA Special Airworthiness Infor-

mation Bulletin NE-08-40, Powerplant—Original Type and Production Certificate Holder Parts and Aftermarket Modification and Replacement Parts, at 1 (2008).

PMA holders may later introduce "major" or "minor" changes to their approved designs with the appropriate authorization. A minor design change is one that has "no appreciable effect on the approval basis or conformity"; any other change is a major change. FAA Order 8110.42B, Parts Manufacturer Approval Procedures, at 16 (2005). Major changes require an applicant to obtain FAA preapproval "in the same manner as that for the original PMA." FAA Order 8110.42A, at 18. Minor changes are approved under procedures to which the FAA and the individual PMA holder agree. *See id.* Regardless of how a PMA change is classified, any change to a "critical" part—*i.e.*, a part whose failure, omission, or non-conformance "may cause significantly degraded airworthiness of the product during takeoff, flight, or landing"—must be approved "in the same manner as that for the original PMA." *Id.* at 2, 18.

B. Facts And Proceedings Below

1. Lycoming designs and manufactures aircraft engines. In 1966, the FAA issued Lycoming a type certificate for an engine with model number O-320-D2C (hereinafter the "O-320 engine"). J.A. 76 (summary-judgment decision); *see also* J.A. 559 (type-certificate data sheet). The issuance of the type

certificate reflected the FAA's determination that the engine's design complied with the federal safety standards applicable to aircraft engines. J.A. 47.

The engine type certificate approved by the FAA included a carburetor. A carburetor is a component that controls the mixture of air and fuel supplied to the engine. The carburetor specified by Lycoming's type certificate was manufactured by an unaffiliated entity, Marvel-Schebler, with model number MA-4SPA (hereinafter the "MA-4 carburetor"). J.A. 77, 560. The MA-4 carburetor consists of two halves: "The bottom of the carburetor is called the float bowl because it is a bowl-shaped compartment that contains the fuel." J.A. 83. "The top half of the carburetor is known as the throttle body because it contains the throttle, the device that meters the flow of air and fuel to the engine." *Id.* In the MA-4 carburetor, the two halves of the carburetor are joined using four hex-head bolts and lock-tab washers. J.A. 83-85. Plaintiff conceded in the proceedings below that Lycoming's type design includes this feature of Marvel-Schebler's carburetor. J.A. 969 (plaintiff's counterstatement of facts).

In 1969, Lycoming manufactured an O-320 engine in Williamsport, Pennsylvania. J.A. 76. In September 1969, Lycoming shipped the engine to Beagle Aircraft in England, along with an MA-4 carburetor manufactured by Marvel-Schebler. J.A. 76-77. Lycoming thereafter had no physical contact

with either the engine or the carburetor. J.A. 76-77, 87; J.A. 411 (Stabley expert decl.).

As the district court recounted, the engine was placed in long-term storage, where it remained for nearly thirty years. J.A. 76-77. During that time, two recommended 12-year overhaul periods passed. J.A. 77, 143-144; *see* 14 C.F.R. § 43.2(a) (defining "overhaul"). In 1998, the engine was taken out of storage and installed on a Cessna 172N single-engine aircraft in the United States. J.A. 77-78. Because the O-320 engine was not approved in the type design of the Cessna 172N, which did not exist when Lycoming obtained the type certificate in 1966, the aircraft's owner had to obtain FAA field approval before installing the engine. J.A. 78, 80; J.A. 516 (expert report of plaintiff's expert Sommer). An overhauled MA-4 carburetor with a different serial number was attached to the engine at that time. J.A. 78.

In July 2004, the engine was removed from the Cessna 172N after the aircraft was struck by lightning. J.A. 81. Defendant Triad Aviation, Inc., subsequently overhauled the engine. J.A. 81, 516. As part of that overhaul, Triad also replaced the MA-4 carburetor. Before it was attached, this third MA-4 carburetor (hereinafter the "replacement carburetor") was "completely rebuilt or overhauled" by defendants Kelly Aerospace, Inc., and Kelly Aerospace Power Systems, Inc. (collectively, "Kelly"). J.A. 271 (second amended complaint); *see also* J.A. 87; J.A. 569-576 (Kelly overhaul record).

Kelly held a repair station certificate from the FAA allowing it to overhaul Marvel-Schebler carburetors. J.A. 969. Additionally, the FAA had previously granted Kelly PMA approvals to manufacture replacement carburetor parts, including the hex bolts, lock-tab washers, and gasket at issue here. J.A. 1672-1679 (Kelly's approved drawings). Kelly's drawings for those parts were approved by the FAA. *Id.* Kelly's replacement parts were eligible for installation in several models of carburetors produced by various manufacturers, including the MA-4 carburetor designed by Marvel-Schebler. J.A. 1335 (Lycoming's objections to plaintiff's counterstatement of facts).

Kelly overhauled the replacement carburetor using a combination of newly manufactured replacement parts and used parts from its core parts bank. J.A. 87-88. The aftermarket parts used by Kelly included the top half (throttle body) and bottom half (float bowl) of the carburetor. J.A. 87. Documents produced by defendant Precision Airmotive LLC (which later acquired Marvel-Schebler's carburetor line, *see* Dkt. 152) indicate that half of the carburetor was originally manufactured by Marvel-Schebler in 1978. *See* J.A. 88; Dkt. 152 (Williams aff.). The other half was likely manufactured by Marvel-Schebler in the 1960s. *See* J.A. 88.

Kelly also used its own PMA-approved parts, including (as plaintiff concedes) the hex bolts, lock-tab washers, and gasket. *See* Br. 16. None of the parts used by Kelly during its overhaul of the replacement carburetor was

manufactured pursuant to a license agreement with Lycoming. J.A. 89; *see also* J.A. 417-419 (Kelly's response to requests for admission). Instead, Kelly obtained its PMA approvals allowing it to manufacture carburetor replacement parts by submitting its own engineering data to the FAA demonstrating similarity (but not identicality) with the original Marvel-Schebler design. J.A. 89; *see also* J.A. 1133 (testimony of plaintiff's expert conceding that Kelly obtained its design approval "[b]y going to the FAA and showing that their parts were similar in fit, form and function and preparing an application and receiving approval").

Kelly was free to make any design choices necessary to achieve this equivalence. J.A. 89-90. For example, in 2004 when Kelly overhauled the replacement carburetor, Marvel-Schebler's successor had long since changed the manufacture of MA-4 carburetors to use plastic floats. J.A. 1340. However, Kelly's separate FAA approval allowed it to continue to use brass floats. *Id.* As plaintiff's counsel conceded below, Kelly chose to mimic Marvel-Schebler's design as a matter of "economics," not because it was "legally required" to do so. J.A. 1462, 1499-1501 (transcript of oral argument on summary-judgment motions); *see also* J.A. 72-74. Kelly stamped its own data tag onto the replacement carburetor. J.A. 419.

2. On July 10, 2005, more than thirty-five years after Lycoming manufactured the original engine, the Cessna 172N on which the overhauled engine and replacement carburetor were installed crashed shortly after takeoff from an airport in North Carolina. J.A. 91. Plaintiff's husband, David Sikkelee, was the pilot of the aircraft and died from injuries sustained in the crash. *Id.*

3. On May 16, 2007, plaintiff brought suit in the United States District Court for the Middle District of Pennsylvania against Lycoming and other defendants. *See* Dkt. 1.[4] In her complaint, plaintiff alleged that the Cessna 172N "lost power as a result of an engine fuel delivery system malfunction/defect," which "caus[ed] the aircraft and its pilot to lose control and crash." *Id.* (¶ 11). The case was initially assigned to Judge Jones. In 2010, the district court granted judgment on the pleadings in part, holding that plaintiff's claims, which sought to impose state-law standards of care on the manufacture and design of aircraft engines, were subject to field preemption under *Abdullah* v. *American Airlines, Inc.*, 181 F.3d 363 (3d Cir. 1999). J.A. 219-244.

Plaintiff filed a second amended complaint, reasserting negligence and strict-liability claims against Lycoming based on alleged breaches of *federal* safety standards. *See* J.A. 364-373, 374-386. Plaintiff's theory of liability was

[4] The other defendants included Kelly, which settled with plaintiff for $2 million. *See* Dkt. 146. The other defendants either were dismissed or settled.

that the attachment system connecting the carburetor's throttle body to the float bowl was defective. *See id.*; *see also* Br. 11-12.

Lycoming moved for summary judgment on two grounds. First, Lycoming sought summary judgment to the extent plaintiff's claims were based on alleged defects in the replacement carburetor, on the ground that Lycoming did not manufacture, sell, or supply that carburetor or any of its parts. *See* Dkt. 223. Second, Lycoming sought summary judgment to the extent plaintiff's claims were based on alleged defects in the engine at the time it was first sold. *See* Dkt. 257.

In 2012, the district court denied summary judgment on the first ground but granted summary judgment in part on the second. J.A. 1-38. With respect to the original engine, the court concluded that plaintiff "ha[d] offered no evidence, expert or otherwise, demonstrating that the engine was defective when it left Lycoming's Williamsport manufacturing plant in 1969 or that a defect existing at that time caused the 2005 aircraft accident." J.A. 13. As to the replacement carburetor, the court agreed with Lycoming that plaintiff's negligence and strict-liability claims required her to prove that "Lycoming is a manufacturer, distributor, or seller of the allegedly offending product." J.A. 11. While acknowledging that Lycoming did not actually manufacture the allegedly defective replacement carburetor, the court determined that Lycoming could be liable as the "*de facto* manufacturer" of the allegedly defective

carburetor. J.A. 15-17, 19. Lycoming moved for reconsideration. *See* Dkt. 332. Although Judge Brann, to whom the case had been reassigned, found it "worrisome" that no case applying Pennsylvania law had ever "imposed products liability on a *de facto* manufacturer," J.A. 661, he concluded that Judge Jones had not committed a clear error of law and denied Lycoming's motion.

Following additional proceedings, Lycoming again moved for summary judgment in 2014. Dkt. 484. The district court granted Lycoming's motion in part and denied it in part. J.A. 1057-1123. The court concluded that Lycoming was entitled to summary judgment under *Abdullah*, *supra*, on claims asserting violations of certain federal aviation regulations because the FAA's issuance of a type certificate for the O-320 engine was "conclusive of the engine's compliance with the design and construction regulations." J.A. 1109; *see also* J.A. 1097-1109. The court, however, denied summary judgment on plaintiff's claim based on 14 C.F.R. § 21.3, which requires type-certificate holders to make certain reports to the FAA. J.A. 1114-1119. Lycoming moved for reconsideration of that ruling. Dkt. 497.

4. Plaintiff obtained leave to file an interlocutory appeal. On appeal, plaintiff argued that the scope of field preemption recognized in *Abdullah* did not include aircraft design and that, alternatively, the FAA's issuance of a type certificate did not shield Lycoming from liability. The panel invited the FAA to submit an amicus brief. In its brief, the FAA agreed with the district court

that "[t]he field preempted by the Federal Aviation Act . . . includes product liability claims based on allegedly defective aircraft and aircraft parts." FAA Amicus Br. 7 (J.A. 1180). The FAA added that, while Congress has occupied the field of aviation safety, "the question of the effect a type certificate has in a given case is governed by conflict preemption principles." *Id.* at 10 (J.A. 1183).

This Court vacated and remanded. *Sikkelee*, 822 F.3d at 683. The Court concluded that "the field of aviation safety described in *Abdullah* was limited to in-air operations" and did not include aircraft design. *Id.* at 689. As a result, the Court held that plaintiff's claims were not subject to field preemption. *See id.* at 708-709. But the Court remanded the case for the district court to consider in the first instance whether plaintiff's claims were subject to conflict preemption. *See id.* at 702, 709. The Court also left for the district court the question whether plaintiff's claims failed under Pennsylvania law (which Lycoming had asked the Court to decide in the interlocutory appeal), concluding that the question was outside the scope of the interlocutory appeal. *See id.* at 709 n.24.

5. On remand, Lycoming again moved for summary judgment. Lycoming contended that plaintiff's claims failed as a matter of Pennsylvania law, as recently clarified by the Pennsylvania Supreme Court in *Tincher* v. *Omega*

Flex, Inc., 104 A.3d 328 (2014). *See* Dkt. 523. Lycoming also argued that plaintiff's claims were subject to conflict preemption. *See* Dkt. 532.

The district court granted Lycoming's motions for summary judgment in an exhaustive, 115-page opinion. J.A. 39-153. The court concluded that Lycoming was entitled to summary judgment under Pennsylvania product-liability law, which is governed by section 402A of the Second Restatement of Torts. J.A. 135-152. To prevail on her strict-liability claims under section 402A, the court explained, plaintiff was required to show either that the engine was "defective when it left Lycoming's hands in the summer of 1969" or that Lycoming could reasonably have foreseen the myriad alterations made to the engine and carburetor. J.A. 137. As to the first issue, the court observed that plaintiff's counsel had previously conceded his inability to establish that a defect existed at the time of manufacture. *Id.* As to the second issue, the court concluded that "Lycoming could not foresee the substantial modifications its engine would ultimately undergo before the subject accident 36 years later." J.A. 143. Reviewing the "tortured life cycle" of the engine—including the extended period in storage and the installation of a carburetor made from "likely aftermarket replacement parts from two different decades"—the court reasoned that "Lycoming was simply not the kind of seller § 402A is meant to reach." J.A. 144, 145.

In rejecting plaintiff's contrary arguments, the district court addressed Judge Jones's earlier holding that Lycoming could be liable as a "*de facto*" manufacturer. J.A 40-41. Noting that it had "previously expressed skepticism at this holding" and citing its increased familiarity with the case, the court concluded that the "expanded notion of liability" proposed by Judge Jones was "unsupported by the law" and was "partially responsible for sending this litigation into an academic tailspin." J.A. 41. The court rejected plaintiff's negligence claim for similar reasons, stressing that plaintiff had "not articulated what precise duty Lycoming breached and what precise remedial measures Lycoming could have taken that would have altered the eventual outcome." J.A. 151.

The district court also concluded that Lycoming was entitled to summary judgment because plaintiff's claims were subject to conflict preemption. J.A. 98-134. The court determined that it was impossible for Kelly and Lycoming to comply with their state-law obligations without obtaining FAA approval. *Id.* Surveying the Supreme Court's conflict-preemption jurisprudence, the court explained that the dispositive question for purposes of impossibility preemption is whether a private party may independently accomplish under federal law what state law requires. J.A. 99-105. Plaintiff's argument, the court observed, was that Pennsylvania law required Lycoming to alter the design of the carburetor attached to its O-320 engine. J.A. 107. The court

concluded that federal law preempted plaintiff's claims because, absent FAA approval, neither Kelly nor Lycoming could have altered the designs in their respective PMA or type certificate, nor could Lycoming have ensured Kelly's compliance with any of Lycoming's own changes. J.A. 98-134.

In a separate ruling, the district court granted Lycoming's pending motion to reconsider the court's earlier denial of summary judgment on plaintiff's claims under 14 C.F.R. § 21.3. J.A. 156-161; *see* p. 14, *supra*. Among other things, the court concluded that plaintiff had "failed to show that the alleged defect or the alleged failure to report the alleged defect was the proximate cause of her decedent's injuries," and that "no reasonable juror could find as much on the facts of this case." J.A. 160.

STANDARD OF REVIEW

This Court reviews an order granting summary judgment de novo. *See*, *e.g.*, *Azur* v. *Chase Bank, USA, N.A.*, 601 F.3d 212, 216 (3d Cir. 2010). The Court may affirm on any ground supported by the record. *See id.*

SUMMARY OF ARGUMENT

I. Plaintiff's claims fail as a matter of Pennsylvania law. That conclusion follows directly from the fact—undisputed throughout this litigation—that Lycoming did not manufacture, sell, or supply the allegedly defective replacement carburetor. Pennsylvania law requires that, for a strict product-liability claim to be viable, the defendant must be "engage[d] in the business

of selling" the allegedly defective product. *Tincher* v. *Omega Flex, Inc.*, 104 A.3d 328, 383 (Pa. 2014). Lycoming did not manufacture, and was not part of the chain of distribution for, the replacement carburetor. It therefore cannot be strictly liable for alleged defects in the replacement carburetor.

Plaintiff contends that, notwithstanding all of those facts, Lycoming still can be held liable because it sold the engine to which the replacement carburetor was attached. But plaintiff offered no evidence demonstrating that the engine was defective when sold—and, in fact, conceded that she could not offer such evidence. Lycoming, moreover, did not design the replacement carburetor; a competitor did. Kelly crafted the replacement carburetor from a hodgepodge of used aftermarket pieces and Kelly-designed and manufactured PMA parts. And even if Lycoming could somehow be deemed the non-manufacturing "designer" of the replacement carburetor, the Pennsylvania Supreme Court has not expanded strict liability to reach those outside the chain of distribution. Finally, any causal link between the engine's supposed flaws and the accident in question was severed by multiple intervening and unforeseeable events, including Kelly's independent decision to overhaul the replacement carburetor using an amalgamation of aftermarket PMA parts. The district court correctly held that plaintiff's novel theory of liability fails.

Plaintiff's policy arguments are unavailing. Pennsylvania has carefully limited strict liability to the sellers of defective products because they are the

parties best able to allocate the risks of those products. Imposing liability on Lycoming, which had no control over Kelly's actions and no knowledge that the replacement carburetor even existed, would do nothing to further the goals of strict liability.

Lycoming's lack of involvement in the manufacture and sale of the replacement carburetor similarly dooms plaintiff's negligence and failure-to-notify-the-FAA claims. As with her strict-liability claim, plaintiff cannot prevail on those claims because Lycoming owed no duty to plaintiff with respect to the allegedly defective replacement carburetor. And her failure-to-notify-the-FAA claim is plainly preempted.

II. Although plaintiff's failure to establish liability under state law provides a sufficient basis for the Court to dispose of this appeal, her claims fail for yet another reason: they are preempted.

When the Court last confronted this case, it confirmed that plaintiff's claims remain subject to traditional conflict-preemption principles. The Supreme Court has established that state-law claims are preempted when it is impossible for a private party independently to comply with both federal and state law without the government's permission and assistance. *PLIVA, Inc.* v. *Mensing*, 564 U.S. 604, 620, 623-624 (2011). The district court correctly held that federal law preempts plaintiff's claims because Kelly could not have inde-

pendently implemented plaintiff's proposed design change; absent FAA approval, Kelly could produce only those PMA parts for which it had authorization. Although Kelly's dependence on the FAA itself establishes preemption, the result would be the same if Lycoming were treated as the dispositive actor. Lycoming could not change its design—or Kelly's, for that matter—without FAA assistance.

Plaintiff's assorted attempts to defeat preemption fail. Plaintiff errs in contending that conflict preemption arises only when an agency has expressly approved the challenged design feature. Neither the Supreme Court nor this Court has expressed such a requirement; in any event, the FAA expressly approved the replacement carburetor's design. Equally unpersuasive is plaintiff's suggestion that Lycoming could simply stop selling its O-320 engine; the Supreme Court squarely rejected a materially identical argument in *Mutual Pharmaceutical Co.* v. *Bartlett*, 570 U.S. 472 (2013). Plaintiff's remaining arguments are unconvincing, and her claims are preempted.

ARGUMENT

I. THE DISTRICT COURT CORRECTLY HELD THAT PLAINTIFF'S CLAIMS FAIL AS A MATTER OF PENNSYLVANIA LAW

The district court correctly held that Lycoming was entitled to summary judgment because Lycoming's remote relationship to the allegedly defective replacement carburetor does not give rise to any actionable duty under Pennsylvania product-liability law. Lycoming did not manufacture, sell, or supply

the replacement carburetor, nor did it otherwise place the replacement carburetor in the stream of commerce. There is no indication that the Pennsylvania Supreme Court would impose a duty on a party such as Lycoming that is not in the chain of distribution of an allegedly defective product. And even if such a duty existed, the substantial and unforeseeable changes made to the engine before the accident mean that plaintiff cannot establish causation. Pennsylvania law does not permit plaintiff's ambitious conception of tort liability, and the Court should reject it.

A. Lycoming Cannot Be Held Strictly Liable Because It Was Not In The Chain Of Distribution Of The Replacement Carburetor

1. The Pennsylvania Supreme Court recently clarified that it applies the Second Restatement of Torts to product-liability claims. *See Tincher* v. *Omega Flex, Inc.*, 104 A.3d 328, 383 (Pa. 2014). Under section 402A of the Second Restatement, "those who engage in the business of selling a product are subject to both a duty of care in manufacturing and selling the product and a duty to sell a product free from a 'defective condition.'" *Id.* Those duties apply not only to "sellers" in the literal sense of that term, but also to manufacturers and other "suppliers in the chain of distribution to the ultimate consumer." *Id.* Importantly, however, liability under the Second Restatement does not extend beyond the supplier-consumer relationship. *Id.*; *cf. Francioni* v. *Gibsonia Truck Corp.*, 372 A.2d 736, 738-739 (Pa. 1977) (stating that "the policy basis for strict liability . . . supports application of the rule to any

supplier of a product who, because he is in the business of supplying products, assumes a special responsibility toward the consuming public").

Courts applying Pennsylvania law have accordingly held that "a manufacturer cannot be held liable under a theor[y] of strict liability . . . for a product it neither manufactured nor supplied." *Schwartz* v. *Abex Corp.*, 106 F. Supp. 3d 626, 653 (E.D. Pa. 2015) (alterations in original) (quoting *Schaffner* v. *Aesys Technologies, LLC*, Nos. 1901 EDA 2008, 1902 EDA 2008, 2010 WL 605275, at *6 (Pa. Super. Ct. Jan. 21, 2010)); *see also McLaud* v. *Industrial Resources, Inc.*, Civ. No. 14-00737, 2016 WL 7048987, at *7 (M.D. Pa. Dec. 5, 2016) (citing *Tincher* and holding that "[b]ecause there is no evidence suggesting [defendant] ever made or sold the machine in question, it had no duty to [p]laintiff under Pennsylvania's strict products liability doctrine and therefore cannot be held liable under such a theory"), *aff'd*, 715 Fed. Appx. 115 (3d Cir. 2017).

In this respect, Pennsylvania law is consistent with "[t]he majority, bright-line approach" of other jurisdictions that have adopted the Second Restatement, which "rejects the application of strict liability to the original manufacturer for defective aftermarket parts that the manufacturer did not sell, even if the parts are identical to the original components that the manufacturer incorporated into the original finished product that it did sell." Kevin M. Smith & Erik H. Beard, *Disassembling Assembler Liability: Are OEMs*

Strictly Liable for PMA Parts in Aviation Cases?, 82 J. Air L. & Com. 169, 175 (2017).[5] That rule reflects the common-sense principle that "[i]t would be unfair to impose such an expansive view of tort liability on those whose original design is mimicked without the designer's permission." *Piscitello* v. *Hobart Corp.*, 799 F. Supp. 224, 226 (D. Mass. 1992).

2. In this case, the undisputed evidence establishes that the allegedly defective replacement carburetor was not the same carburetor that was shipped with Lycoming's O-320 engine in 1969. As plaintiff herself alleges, the replacement carburetor was "completely rebuilt or overhauled" by Kelly in 2004. J.A. 271. As a PMA holder, Kelly was free to manufacture the carburetor parts without the blessing of Lycoming—as it in fact did. J.A. 88-89; *see* pp. 6, 10-11, *supra*. Lycoming did not license, sanction, or approve Kelly's manufacture of the MA-4 replacement carburetor parts.

To the contrary, PMA holders such as Kelly *compete* with Lycoming's suppliers or licensees in the aftermarket for replacement parts. *See* Charlotte Adams, *PMA vs. OEM Parts: Notes from the Front*, Aviation Maintenance (Jan. 19, 2017) <tinyurl.com/PMAvOEM>. Lycoming had no control over

[5] *See, e.g.*, *Goldsmith* v. *Olon Andrews, Inc.*, 941 F.2d 423, 427 (6th Cir. 1991); *cf. Harmon* v. *National Automotive Parts Association*, 720 F. Supp. 79, 81 (N.D. Miss. 1989); *Mechanical Rubber & Supply Co.* v. *Caterpillar Tractor Co.*, 399 N.E.2d 722, 723 (Ill. App. Ct. 1980).

whether Kelly placed the replacement carburetor into the stream of commerce. Nor could it control Kelly's design choices; only the FAA could compel Kelly to alter the replacement carburetor's design. These undisputed facts compel the conclusion that Lycoming owed no duty to plaintiff's decedent with respect to the replacement carburetor under Pennsylvania law.

B. Plaintiff's Arguments For Imposing Strict Liability On Lycoming Are Unpersuasive

Plaintiff does not dispute that Kelly, not Lycoming, overhauled and supplied the replacement carburetor. But plaintiff contends that Lycoming can be held liable for alleged defects in Kelly's replacement carburetor anyway. Plaintiff's position rests on a hodgepodge of inapposite case law and strained policy arguments. The Court should reject plaintiff's sweeping view of tort liability.

1. Tacitly recognizing Lycoming's remote relationship to the allegedly defective replacement carburetor, plaintiff initially argues that Lycoming should be held strictly liable because it designed the O-320 engine onto which the replacement carburetor was ultimately attached. *See* Br. 40-48. But that fact does not somehow make Lycoming the seller or manufacturer or even the designer of the replacement carburetor.[6] In any event, as Judge Jones observed in granting summary judgment on plaintiff's engine-related claims in

[6] Recognizing this problem, plaintiff asserts that, "in federal aviation law, the carburetor is not a separate 'product' from Lycoming's engine." Br. 48

2012, plaintiff "offered no evidence, expert or otherwise, demonstrating that the engine was defective when it left Lycoming's Williamsport manufacturing plant in 1969 or that a defect existing at that time caused the 2005 aircraft accident." J.A. 13.

Given the changes to the engine between 1969 and the 2005 accident, plaintiff cannot possibly make that showing; plaintiff points to nothing in the summary-judgment record that would justify overturning Judge Jones's determination that Lycoming was entitled to summary judgment on this basis. In light of her failure of proof on this issue, it is unsurprising that plaintiff long ago conceded she could not show that the engine was defective at the time it was originally manufactured. *See* J.A. 137 ("In 1969 when you are selling it to Beagle, who doesn't make 172 airplanes, I agree, I couldn't prove it was defective at that point.").

Plaintiff also errs in suggesting that, simply because Lycoming designed the engine, it can also be considered the designer of the replacement carburetor. *See* Br. 49-52. Lycoming did not participate in the overhaul of the replacement carburetor and had no control over Kelly's design. *See* p. 10-11, *supra*.

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n.11. But the regulation plaintiff cites, 14 C.F.R. § 21.1, only supplies definitions for purposes of determining the level of FAA approval required to make a design change; the regulation does not purport to reflect the FAA's views on the proper application of state tort law. In any event, plaintiff's argument is irrelevant in light of the undisputed evidence that the allegedly defective components of the replacement carburetor were designed by Kelly, a third party.

To the contrary, as the district court determined, "[t]o the extent that Kelly's parts were similar to Lycoming's, it was because Kelly consciously decided as much, not because its hand was forced by Lycoming." J.A. 89.

Even assuming, however, that Lycoming's mere decision to include the Marvel-Schebler-designed MA-4 carburetor in the type design for the O-320 engine made Lycoming the "designer" of the replacement carburetor—a dubious premise at best—plaintiff's strict-liability claim would still fail for two reasons. *First*, no Pennsylvania authority supports plaintiff's expansive view of strict liability. A federal court sitting in diversity must predict how the State's highest court would rule when addressing the same question. *See*, *e.g.*, *City of Philadelphia* v. *Beretta U.S.A. Corp.*, 277 F.3d 415, 421 (3d Cir. 2002). In performing that task, "it is not the role of a federal court to expand state law in ways not foreshadowed by state precedent." *Id.* Where there are "two competing yet sensible interpretations of Pennsylvania law," a federal court "should opt for the interpretation that restricts liability, rather than expands it, until the Supreme Court of Pennsylvania decides differently." *Werwinski* v. *Ford Motor Co.*, 286 F.3d 661, 680 (3d Cir. 2002).

Here, plaintiff has not even proffered a sensible interpretation of Pennsylvania product-liability law, let alone one "foreshadowed by state precedent." *City of Philadelphia*, 277 F.3d at 421. Plaintiff does not cite a single Pennsylvania decision, much less one of the Pennsylvania Supreme Court,

holding that a defendant that merely permits the use of the design for a product is a "seller" for purposes of section 402A of the Second Restatement. In fact, two federal judges have held the opposite. *See Thorpe* v. *Bollinger Sports, LLC*, Civ. No. 14-4520, 2015 WL 5299614, at *3 (E.D. Pa. Sept. 9, 2015); *Macauley* v. *Harris Corp.*, Civ. No. 89-6271, 1991 WL 53655, at *3 (E.D. Pa. Apr. 4, 1991).[7] The Court should reject plaintiff's novel "seller-by-proxy" theory on that basis alone.

Second, as the district court concluded, the changes to the engine before the accident were not foreseeable to Lycoming as a matter of law, and thus plaintiff cannot establish causation. *See* J.A. 144-145. Under the Second Restatement, a manufacturer of a product is not strictly liable for an alleged defect if "(1) the product was substantially altered after it left the manufacturer's control; (2) the modifications were not foreseeable to the manufacturer; and (3) the changes to the product were a superseding cause of the user's injury." *Hoffman* v. *Niagra Machine & Tool Works Co.*, 683 F. Supp. 489, 493 (E.D. Pa. 1988). The foreseeability limitation reflects that it "is not the purpose of § 402A to impose absolute liability." *Davis* v. *Berwind Corp.*, 690 A.2d 186,

[7] The out-of-jurisdiction cases cited by plaintiff (Br. 50-51) involved substantially different facts. *See Union Supply Co.* v. *Pust*, 583 P.2d 276 (Colo. 1978) (en banc); *Denekamp* v. *Hetronic USA, Inc.*, Civ. No. 06-5025, 2008 WL 4646954, at *4 (D.S.D. Oct. 17, 2008); *Taylor* v. *General Motors, Inc.*, 537 F. Supp. 949, 951 (E.D. Ky. 1982); *Alm* v. *Aluminum Co. of America*, 717 S.W.2d 588, 589 (Tex. 1986).

190 (Pa. 1997). If subsequent alterations were not reasonably foreseeable when the product entered the stream of commerce, the manufacturer is entitled to judgment as a matter of law. *See, e.g.*, *Hanlon* v. *Cyril Bath Co.*, 541 F.2d 343, 345 (3d Cir. 1975); *Speyer, Inc.* v. *Humble Oil & Refining Co.*, 403 F.2d 766, 771 (3d Cir. 1968).

Courts applying the Second Restatement have found that a substantial alteration occurred, severing the causal link between the manufacturer's product and the plaintiff's asserted harm, even where the change was of the sort that might be anticipated in a general sense. For example, in *Schwartz*, *supra*, the district court considered whether the defendant manufacturer of airplane engines could be held strictly liable for asbestos exposure where the defendant had not manufactured or supplied the aftermarket component part in question. *See* 106 F. Supp. 3d at 628. After reviewing authority from Pennsylvania and other jurisdictions, the court stated that, "as a matter of law, replacement of original component parts . . . constitutes a 'substantial change' to the manufacturer's product," because "the aftermarket component part was never in the 'control' of the product manufacturer." *Id.* at 653-654.

Fisher v. *Walsh Parts & Service Co.*, 296 F. Supp. 2d 551 (E.D. Pa. 2003), is also instructive. There, the court considered whether the manufacturer of a metal press could be liable for an injury caused when bolts in the safety assembly loosened. *See id.* at 557. Noting the multiple repairs and alterations

to the press that had occurred between its manufacture in 1976 and the accident in 1999, the court concluded that the changes leading to the accident were not foreseeable. *See id.* at 554, 556, 565. The court added that judgment for the defendant would be appropriate even if the changes had been foreseeable, because it was *not* foreseeable that the repairs and alterations would be improperly implemented. *See id.* at 565.

The "extreme extent of the modification" and "the tortured life cycle" of the O-320 engine before the accident likewise amounted to substantial and unforeseeable changes. J.A. 144. After being stored for nearly 30 years and missing at least two recommended overhauls, the engine was installed on an aircraft that did not even exist when the engine was manufactured. J.A. 77, 144. The engine and carburetor were completely overhauled by third parties, Kelly and Triad, with no direct involvement by Lycoming. J.A. 144-145. Kelly created, in the words of the district court, "'a Frankenstein's monster'—literally melding together two distinct aftermarket carburetor halves produced in subsequent decades before adjoining those two halves with a third set of parts from a different aftermarket parts manufacturer." J.A. 88. Each of those factors, whether taken together or separately, warrants affirmance of the district court's judgment.[8]

[8] Citing a note to the Suggested Pennsylvania Standard Jury Instructions, plaintiff argues that foreseeability is never a defense in design-defect cases.

2. Plaintiff suggests that *Pridgen* v. *Parker Hannifin Corp.*, 905 A.2d 422 (Pa. 2006), *adhered to on reargument*, 916 A.2d 619 (Pa. 2007), supports permitting liability on the facts presented here. *See* Br. 49. It does not. The question in *Pridgen* was one of federal, not state, law. In dictum, the Court stated in *Pridgen* that a type-certificate holder "might" be liable for a replacement part. *See* 916 A.2d at 623. But in making that statement, the Court cited section 400 of the Second Restatement, which provides that "[o]ne who puts out as his own product a chattel manufactured by another is subject to the same liability as though he were its manufacturer." *Forry* v. *Gulf Oil Corp.*, 237 A.2d 593, 599 (Pa. 1968) (citation omitted). A claim based on section 400, known as "apparent" manufacturer liability, is premised on the notion that "[t]he act of placing one's name on a product is a factor in assessing responsibility because it frequently causes a product to be used in reliance upon the seller's reputation." *Brandimarti* v. *Caterpillar Tractor Co.*, 527 A.2d 134, 139 (Pa. Super. Ct. 1987) (citation omitted).

Plaintiff's claim is not based on section 400. Lycoming did not market Kelly's replacement carburetor as its own; to the contrary, Kelly used its own

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Br. 47. But that note does not address a case in which the defendant did not make or sell the allegedly defective part. At any rate, whether those "suggested" jury instructions accurately reflect Pennsylvania law following *Tincher* is currently being litigated in the Pennsylvania courts. *See Tincher* v. *Omega Flex, Inc.*, No. 1285 EDA 2016, 2018 WL 915007 (Pa. Super. Ct. Feb. 16, 2018) (remanding for new trial in light of instructional errors).

PMA-approved parts and stamped the carburetor with its own data tag. *See* p. 10-11, *supra*. The principles courts have adopted for evaluating claims under section 400 thus have no bearing here.

3. Plaintiff contends that the "legal and policy concerns animating strict liability" support imposing liability on Lycoming. Br. 52. The relevant policy judgment was already made, however, when the Pennsylvania Supreme Court adopted section 402A of the Second Restatement and required that a party must be a "seller" of an allegedly defective product for strict liability to attach. To the extent plaintiff disagrees with that judgment, her recourse is to the Pennsylvania General Assembly, not to this Court.

Expanding strict liability to reach Lycoming on these facts would frustrate, not serve, the aims of strict liability. Section 402A "reflects the social policy that a seller or manufacturer is best able to shoulder the costs and to administer the risks involved when a product is released into the stream of commerce." *Davis,* 690 A.2d at 189-190. "Having derived a benefit from engaging in business, manufacturers and sellers are particularly able to allocate the losses incurred through cost increases and insurance." *Id.* at 190. This rationale for strict liability is inapplicable to Lycoming. *See Cafazzo* v. *Central Med. Health Services, Inc.*, 668 A.2d 521, 526 (Pa. 1995) ("Where the liability is sought to be imposed on a party which is not a seller under [§] 402A, such liability would indeed be assigned for no reason at all.").

In addition, because Lycoming did not control the design or production of the replacement carburetor, it "could not assure conformance with its improved designs" and "was in no position to treat the risks of producing the [carburetor] as costs of production, or obtain liability insurance." *Goldsmith* v. *Olon Andrews, Inc.*, 941 F.2d 423, 427 (6th Cir. 1991); *cf. Airmotive Engineering Corp.* v. *FAA*, 882 F.3d 1157, 1159 (D.C. Cir. 2018) (noting that the FAA had determined that a PMA-certified replacement part was 32 times more likely to fail than the original part). Expecting Lycoming to "allocate the losses" from a part it did not make or sell would violate the rule that "[a] manufacturer is a guarantor of its product, not an insurer." *Davis*, 690 A.2d at 190. If Kelly put a defective part into the stream of commerce, plaintiff may sue Kelly. And of course, plaintiff did: as noted above, plaintiff obtained $2 million in a settlement of her claim against Kelly. *See* p. 12, n.4, *supra*.

Unable to rebut these points, plaintiff is left to hypothesize that, if Lycoming had changed its type design, Kelly might have changed its own design for replacement carburetor parts. Br. 52. But, as already discussed, Kelly received FAA approval independently of Lycoming by submitting its own engineering drawings and data to the FAA. *See* J.A. 89-90; J.A. 1133 (testimony of plaintiff's expert Sommer). And it was the FAA, rather than Lycoming, that had the authority to control how Kelly chose to manufacture parts under its

PMAs. Plaintiff's hypothesis is far too speculative to justify strict liability under Pennsylvania law.

C. Plaintiff's Negligence And Failure-To-Notify-The-FAA Claims Also Fail

1. Plaintiff does not offer any discrete arguments for holding Lycoming liable under a negligence theory. *See* Br. 53. Because Lycoming owed no duty with respect to the replacement carburetor and had no ability to foresee the changes that were made to the O-320 engine after its manufacture, plaintiff's negligence claim also fails as a matter of Pennsylvania law. *See Mellon* v. *Barre-National Drug Co.*, 636 A.2d 187, 191-192 (Pa. Super. Ct. 1993) (concluding that, unless a defendant is the manufacturer, distributor, or seller of the offending product, "there can be no allegations of duty, breach of duty, or legal causation, and hence there can be no liability"); *Van Buskirk* v. *Carey Canadian Mines, Ltd.*, 760 F.2d 481, 492 (3d Cir. 1985) (noting that "[p]roximate causation is a necessary element in proving a tort case under theories of strict liability or negligence" (citation omitted)).

2. As the district court recognized, plaintiff's claim based on 14 C.F.R. § 21.3, alleging a failure to report defects in the carburetor to the FAA, fails for similar reasons. *See* J.A. 156-161. Because Lycoming did not manufacture the replacement carburetor, it owed no duty to report defects in that carburetor to the FAA. *See, e.g.*, *Dalrymple ex rel. Dalrymple* v. *Fairchild Aircraft Inc.*, 575 F. Supp. 2d 790, 797 (S.D. Tex. 2008) (explaining that, "[b]y

its plain terms, § 21.3(a) applies only to a type certificate holder that *also* manufactured the subject product or part that is determined to be defective"). Plaintiff also failed to proffer any evidence that Lycoming violated section 21.3 or that any violation proximately caused the accident. *See* J.A. 160. To the contrary, the record conclusively shows that the FAA had been informed of reports of loose screws in the MA-4 carburetor since at least 1973. *See* J.A. 557 (letter from FAA to Lycoming); *see also* Dkt. 268-7, at 4 (FAA service difficulty report data).[9] The FAA nevertheless approved Kelly's PMA.

Plaintiff's section 21.3 claim fails for the additional reason that plaintiff identifies no basis under state law for holding a manufacturer liable for failing to report defects *to the FAA*. To the contrary, as Lycoming argued below, *see* Dkt. 497, 498, the Supreme Court has rejected analogous efforts to create state-law causes of action that would invade federal agencies' exclusive regulatory authority. *See Buckman Co.* v. *Plaintiffs' Legal Committee*, 531 U.S. 341, 350 (2001) (holding that the plaintiff's claim based on allegedly false representations to the Food and Drug Administration was preempted). So too here, federal law would preempt a State's attempt to hold a manufacturer liable for violating the reporting requirements of section 21.3 using a generalized

[9] In response to these reports, Lycoming issued a service bulletin advising that the "throttle body attaching screws" should be checked for tightness during inspection; if the screws were loose, the bowl should be disassembled from the throttle body and reassembled using "new lockwashers." J.A. 567 (service bulletin no. 366).

state-law duty of care, because it is the FAA—and the FAA alone—that is charged with enforcing those reporting requirements. *Id.* at 350-351; *cf. Arizona* v. *United States*, 567 U.S. 387, 402 (2012) (concluding that "[p]ermitting the State to impose its own penalties for the federal offenses here would conflict with the careful framework Congress adopted").

II. THE FEDERAL AVIATION ACT AND ITS IMPLEMENTING REGULATIONS PREEMPT PLAINTIFF'S CLAIMS

Even if the Court were to conclude that plaintiff has valid state-law claims, it should affirm the judgment below on the alternative ground that federal law would preempt those claims.

In *PLIVA, Inc.* v. *Mensing*, 564 U.S. 604, 621 (2011), the Supreme Court held that federal law preempts a state-law tort claim when the defendant cannot independently comply with the asserted state-law duty (*i.e.*, without the government's assistance). This case involves a straightforward application of that principle. Federal law prohibited Kelly from independently altering the design of the replacement carburetor parts. Lycoming played no role in Kelly's design approval for the parts at issue. To the extent plaintiff argues that if Lycoming had changed the design of the carburetor attached to its O-320 engine, then Kelly would have followed suit, federal law prohibited Lycoming from making such changes without FAA approval. As a result, plaintiff's state-law claims are preempted under *PLIVA*.

A. This Court Previously Recognized That Plaintiff's Claims Remain Subject To Traditional Principles Of Conflict Preemption

The doctrine of preemption arises from the supremacy of federal law. *See* U.S. Const. Art. VI. Congress may exert its supremacy through the express language in a statute. *See Morales* v. *Trans World Airlines, Inc.*, 504 U.S. 374, 383 (1992). It may also do so implicitly under the doctrines of field preemption or conflict preemption. *See Crosby* v. *National Foreign Trade Council*, 530 U.S. 363, 372 (2000). Field preemption occurs when Congress has indicated "an intent to occupy a given field to the exclusion of state law." *Schneidewind* v. *ANR Pipeline Co.*, 485 U.S. 293, 300 (1988). Conflict preemption exists when compliance with both federal and state law is impossible, *see PLIVA*, 564 U.S. at 617, or when a challenged state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of a federal law, *see Crosby*, 530 U.S. at 373.

When this Court last confronted the question whether federal law preempts plaintiff's design-defect claims, it affirmed that the claims are "subject to traditional conflict preemption principles." *Sikkelee* v. *Precision Airmotive Corp.*, 822 F.3d 680, 709 (3d Cir. 2016). Consistent with the views expressed by the FAA in its amicus brief, the Court observed that, "because the type certification process results in the FAA's preapproval of particular spec-

ifications from which a manufacturer may not normally deviate without violating federal law, the type certificate bears on ordinary conflict preemption principles." *Id.* at 702. The Court left the issue of conflict preemption for the district court to consider on remand, *id.*, and the district court correctly held that federal law preempts plaintiff's claims.

B. State-Law Claims Are Preempted When A Party Cannot Independently Do Under Federal Law What State Law Requires

Conflict preemption occurs, *inter alia*, when a state law conflicts with a federal law such that compliance with both is impossible. *See Florida Lime & Avocado Growers, Inc.* v. *Paul*, 373 U.S. 132, 142-143 (1963). The Supreme Court recently delineated the contours of the impossibility strand of conflict preemption in a trilogy of cases. The Court's decisions establish that federal law preempts state tort claims when a party cannot independently act under federal law in the manner that state law requires.

1. In *Wyeth* v. *Levine*, 555 U.S. 555 (2009), a plaintiff who was injured after using a brand-name drug claimed that the manufacturer's label failed to warn adequately of the drug's risks. *See id.* at 558. In response, the manufacturer argued that federal drug regulations made it "impossible for it to comply with the state-law duty to modify [the drug's] labeling without violating federal law." *Id.* at 563.

The Supreme Court rejected the manufacturer's preemption defense. The Court recognized that manufacturers generally require the FDA's permission to change a drug label. *See Wyeth*, 555 U.S. at 568. But the Court identified an exception to that principle under an FDA regulation known as the "changes-being-effected" (CBE) regulation. *See id.* That regulation permitted a manufacturer to make changes to its label before receiving the agency's approval, although FDA retained the authority to rescind such changes later. *See id.* at 568, 571. Because the manufacturer in *Wyeth* could have used the CBE regulation unilaterally to add the warning required by state law, the Court determined that it was not impossible to comply with both federal and state law, and it therefore held that federal law did not preempt the plaintiff's claim. *See id.* at 573.

2. Two years later, in *PLIVA, Inc.* v. *Mensing*, 564 U.S. 604 (2011), the Court reached the opposite result. There, the plaintiffs claimed that state law required generic drug manufacturers to use a different label. The manufacturers again argued that it was impossible to comply with both federal labeling requirements and the state-law warning requirement. *See id.* at 610.

This time, the Court agreed with the manufacturers. *See* 564 U.S. at 618. The Court determined that the CBE regulation did not permit generic drug manufacturers unilaterally to alter their labels in the same manner as brand-name manufacturers. *See id.* at 614-615. The Court observed that the

generic manufacturers might instead have requested that FDA allow them to strengthen their labels. *See id.* at 616-617. But the Court declined to hold that the mere *possibility* of action by the government could eliminate the conflict between federal and state law. *See id.* at 620. Were such "conjectures" sufficient to prevent a conflict, the Court reasoned, conflict preemption would become "meaningless." *Id.* at 621. Instead, the Court held that "impossibility" is determined by what "the private party could independently do" without "the Federal Government's special permission and assistance." *Id.* at 620, 623-624.

3. The Supreme Court reaffirmed and expanded upon *PLIVA* in *Mutual Pharmaceutical Co.* v. *Bartlett*, 570 U.S. 472 (2013). In that case, the plaintiff brought a design-defect claim that would have required the generic drug manufacturer to change the drug's design or labeling. *See id.* at 482-484. The court below had concluded that the manufacturer failed to demonstrate impossibility because it could "simply have pulled [the drug] from the market." *Id.* at 475. The Supreme Court rejected that reasoning; it noted that, if simply abstaining from an activity governed by conflicting federal and state laws were enough to prevent impossibility preemption, such preemption would become "all but meaningless." *Id.* at 488 (citation omitted).

C. Federal Regulations Prohibited Kelly and Lycoming From Independently Altering The Carburetors' Designs

Plaintiff alleges that a particular FAA-approved design feature of Kelly's replacement carburetor caused the Cessna 172N to crash: she challenges the use of lock-tab washers to secure the hex bolts that connect the throttle body to the float bowl. *See* Br. 11-12. Plaintiff's proposed alternative design would substitute safety wire in place of these washers. *See* Br. 12. Because Kelly could not have implemented that design change without federal approval, and because FAA approval was similarly needed for any adjustment in the Lycoming type-design (which plaintiff argues might have influenced Kelly to follow), plaintiff's claims are preempted.

1. In opposition to Lycoming's summary-judgment motion, plaintiff argued that Kelly could have changed the carburetor's design in its capacity as a PMA holder. *See* Dkt. 545, at 14-15. That is incorrect. Kelly manufactured replacement parts for the MA-4 carburetor pursuant to PMA authorizations issued by the FAA. Those PMA authorizations permitted Kelly to manufacture and sell the bolts and lock-tab washers that comprise the attachment mechanism connecting the two halves of the replacement carburetor. *See id.* Kelly could only manufacture parts for which it had PMA authorization. If Kelly had wished to produce a different part for use in the attachment mechanism, it had two options—both of which required the FAA's assent.

First, Kelly could have started anew. It could have submitted a new PMA application to the FAA, along with the design drawings and specifications in support thereof. *See* 14 C.F.R. § 21.303(c) (2004); FAA Order 8110.42A, at 9-10. Upon receipt of Kelly's application, the FAA could have issued a PMA if it determined that Kelly's design complied with applicable regulations and airworthiness standards. *See* 14 C.F.R. § 21.303(d) (2004).

In the alternative, Kelly could have attempted to change its existing design. *See* FAA Order 8110.42A, at 18. But that, too, would have required the FAA's assistance. Although the FAA classifies PMA design changes as major or minor, *see id.*, FAA approval is required for *all* changes, no matter the classification. When requesting a minor design change, the PMA holder must follow an individualized approval procedure established by the FAA. *See id.* If the FAA concurs with the change, it communicates its approval to the applicant by letter. *See id.* The procedures for major design changes are even more stringent; before implementing major changes, the PMA holder must obtain approval from the FAA "in the same manner as that for the original PMA." *Id.* And regardless of whether a change is classified as major or minor, the FAA must also approve any changes to a "critical" part, which is one whose failure, omission, or non-conformance "may cause significantly degraded airworthiness of the product." *Id.* at 2, 18.

No matter how plaintiff's proposed change is classified, then, Kelly could not have unilaterally implemented it. If Kelly had sought to produce safety wire under a new PMA, it would have had to submit a new application and await FAA authorization. If Kelly had instead opted to introduce a major or minor change to the design of its existing parts, it would still have required FAA approval. Plaintiff has acknowledged that Kelly previously sought and obtained FAA approval for minor design changes to its gasket. J.A. 1139 (Lycoming's statement of facts); J.A. 1152 (FAA letter to Kelly); J.A. 1305 (plaintiff's counterstatement of facts).[10]

Perhaps recognizing the futility of the foregoing argument, plaintiff offered a new argument in the final stage of the proceedings below. In a supplemental brief submitted after oral argument on Lycoming's motions for summary judgment, plaintiff for the first time suggested that Kelly could have "altered" the carburetor in its capacity as a repair station (as opposed to its capacity as a PMA holder). *See* Dkt. 564, at 5-7. An alteration modifies an individual aircraft from one airworthy state to another. *See* FAA Order 8110.37C, Designated Engineering Representative Guidance Handbook 28 (1998). The FAA authorizes repair stations such as Kelly to perform alterations on articles within the scope of their certifications. *See* 14 C.F.R. §§ 43.3(e), 145.201 (2018).

[10] Plaintiff's position is further undermined by the fact that, under her theory of the case, Kelly's hex bolts and lock-tab washers must necessarily be "critical" parts. *See* FAA Order 8110.42A, at 18.

Plaintiff reprises this "eleventh-hour argument" on appeal, J.A. 72 n.14: she contends that, if Lycoming had "changed its type design," Kelly would have "implemented the new design in the accident carburetor as an alteration," Br. 38. According to plaintiff, "Lycoming's hypothetical design change" would have prompted Kelly to change the attachment method as a minor alteration "with no FAA involvement," or alternatively to make a major alteration based on preexisting data, again "without FAA involvement." Br. 38.

It is unsurprising that plaintiff offered this "repair station" argument at the eleventh hour: if anything, it merely confirms that plaintiff does not have valid claims under state law in the first place. Plaintiff does not, and cannot, argue that Kelly's authority to make alterations to any individual carburetors depended on any action by Lycoming. If Kelly was free to choose either safety wire or lock-tab washers as an attachment method when it overhauled the accident carburetor, as plaintiff asserts, then there is simply no basis for holding Lycoming responsible for Kelly's independent decision to choose lock-tab washers. The accident carburetor features the latter design because Kelly independently selected it, both in its capacity as a PMA holder and as a repair station.

If, on the other hand, Kelly could have altered the carburetor as a repair station only if Lycoming had previously changed its type design—which plain-

tiff wisely does not argue—plaintiff's claims would run straight into Lycoming's preemption defense. As discussed below, *see* pp. 46-48, Lycoming could not have changed its type design unless the FAA first approved that change.

2. Plaintiff fares no better when she attempts to shift the focus to Lycoming. As already discussed, Kelly was not required to follow the design of the carburetor originally attached to the O-320 engine when it applied for PMA approval. *See* pp. 10-11, *supra*. Lycoming had no control over Kelly's initial design decisions. Nor could Lycoming have forced Kelly to modify Kelly's chosen design; even if Lycoming had changed the carburetor associated with the O-320 engine, Kelly remained free to use any carburetor part design that complied with the applicable airworthiness standards. In fact, the *only* entity with authority to compel Kelly to alter its design was the FAA.

In any event, FAA regulations prohibited Lycoming from unilaterally altering the design of the Marvel-Schebler carburetor attached to the O-320 engine. FAA approval is required for both major and minor changes to a type design; the only difference is the process an applicant must follow in order to secure such approval. To implement a major design change, a type-certificate holder must apply to the FAA for an amended or supplemental type certificate. 14 C.F.R. § 21.113; *see* FAA Amicus Br. 4 (J.A. 1177); *United States* v. *S.A. Empresa de Viacao Aerea Rio Grandense (Varig Airlines)*, 467 U.S. 797,

807 (1984) (*Varig Airlines*). That process requires the submission of substantiating and descriptive data, as well as evidence that the change complies with applicable regulatory requirements. *See* 14 C.F.R. §§ 21.97(a), 21.115; FAA Amicus Br. 4, 15 (J.A. 1177, 1188). Minor changes are approved under a "method acceptable to the FAA" *before* the submission of substantiating or descriptive data. 14 C.F.R. § 21.95. Those changes are "subject to approval by the FAA," FAA Amicus Br. 5 (J.A. 1178), even though the FAA and the applicant establish acceptable approval procedures on a case-specific basis.

Plaintiff's state-law claims are preempted whether her proposed type-design change qualifies as major or minor.[11] No doubt recognizing that major type-design changes require FAA "preapproval," *Sikkelee*, 822 F.3d at 703 n.21, plaintiff strains to convince the Court that her proposed change would be a minor one. *See* Br. 36-37. As the district court recognized, however, a minor type design change is one having "no appreciable effect on the engine's reliability, airworthiness, structure, or operation." J.A. 114; *see* 14 C.F.R. § 21.93(a). And if the design change sought by plaintiff had no appreciable effect on the engine's airworthiness, her claims would necessarily fail for lack of proximate causation. *See* J.A. 114-115.

[11] Plaintiff does not dispute that her proposed change would necessitate a change to Lycoming's type design. *See* Br. 36-37. In the proceedings below, plaintiff admitted that the purportedly defective attachment system was "part of the O-320 engine type design." J.A. 969.

But more fundamentally, plaintiff's claims would still be preempted even if her proposed change would be a minor one, because Lycoming could not have implemented a minor change absent FAA approval. FAA regulations contemplate that the agency will "approve[]" minor design changes; the regulations direct FAA employees to determine the best method to accomplish that approval in a given case. *See* 14 C.F.R. § 21.95. The agency's adoption of individualized approval procedures, however, does not undermine the reality that *some* form of approval is always required. The FAA recognized as much in its earlier amicus brief: "[N]o matter what role a manufacturer plays in the type-certification process, the decision to approve the type design ultimately rests with the FAA. This is true even for 'minor' type design changes, 14 C.F.R. § 21.93(a), which are approved under a method acceptable to the FAA." FAA Amicus Br. 15 (J.A. 1188).

Undaunted, plaintiff contends that manufacturers may implement minor design changes without the FAA's approval, relying on an FAA handbook that postdates the accident here by over a decade. *See* Br. 36 (citing FAA Order 8110.37F, Designated Engineering Representative Handbook, 4-4 (2017)). That handbook, however, does not state that manufacturers may *independently* implement minor design changes. Instead, it simply notes that minor changes do not require a formal "FAA project." *Id.* That is unremarkable, as the FAA generally establishes formal "projects" when an applicant

seeks a new, amended, or supplemental type certificate—none of which is needed to support a minor design change. *See* FAA Order 8110.4B, Type Certification, 8-9 (2000). Contrary to plaintiff's contention, the FAA has previously explained that it approves *all* design changes, even those changes that are classified as minor. *See* FAA Amicus Br. 15 (J.A. 1188).

D. Plaintiff's Arguments Against Preemption Are Invalid

Plaintiff offers a grab bag of arguments in an effort to avoid the straightforward application of the Supreme Court's conflict-preemption precedent. All of those arguments lack merit.

1. Plaintiff first contends that conflict preemption arises only when an agency has expressly approved the challenged design feature. *See* Br. 26-27. That is incorrect. The Supreme Court has not held that conflict preemption requires evidence of express approval. The dispositive question in *Wyeth*, *PLIVA*, and *Mutual Pharmaceutical* was whether the manufacturers could have independently altered their warning labels. Where independent action was not possible, the claims were preempted. Evidence of express approval entered into the Supreme Court's preemption analysis, if at all, only when a manufacturer could independently act, but the government retained the authority to rescind that action; in such circumstances, manufacturers could demonstrate preemption by offering "clear evidence" that the agency would have rescinded the change. *PLIVA*, 564 U.S. at 624 n.8 (quoting *Wyeth*, 555

U.S. at 571). But no such evidence was necessary where, as here, independent action was impossible in the first instance.

Nor has this Court applied an expanded version of the conflict-preemption test. To the contrary, the Court's earlier opinion in this case demonstrates a marked fidelity to "traditional" conflict-preemption principles. *See Sikkelee*, 822 F.3d at 683, 695, 699, 703-704, 709. Although plaintiff observes that this Court's earlier opinion refers on occasion to express approval, *see* Br. 27 n.7, she takes those scattered references out of context. For starters, plaintiff quotes portions of the opinion in which the Court was simply describing the *FAA*'s position, rather than its own. *See* Br. 27; *Sikkelee*, 822 F.3d at 699, 702.[12] And the Court's references to specifications "expressly" set forth in a type certificate reflect nothing more than the application of traditional conflict-preemption principles to the aviation context. *See Sikkelee*, 822 F.3d at 683. The Court correctly reasoned that an FAA-issued type certificate "bears on" the standard conflict-preemption analysis, because it represents the design specifications "from which a manufacturer may not normally deviate" without the FAA's approval. *Id.* at 702.

Even assuming, *arguendo*, that express approval plays a role in the preemption analysis, the FAA expressly approved the attachment mechanism

[12] Although agencies such as the FAA have a "unique understanding of the statutes they administer," they have "no special authority to pronounce on preemption." *Wyeth*, 555 U.S. at 576-577.

at issue here. The FAA expressly approved the design of Kelly's gasket, screws, and lock-tab washers, which together form a unit to connect the two carburetor halves. *See* p. 10, *supra*. It is no accident that the FAA approved this feature of Kelly's design; it had approved the design of Marvel-Schebler's carburetor attachment system when it issued type certificate E-274 to Lycoming. *See* pp. 7-8, *supra*. In fact, when the FAA approved Lycoming's type design in 1966, it had already considered the safety of the attachment method about which plaintiff complains, issuing a directive with respect to other Marvel-Schebler MA-model carburetors specifying that the method "may be substituted for screws and safety wire . . . without adversely affecting safety." 30 Fed. Reg. 8034 (1965).

2. Plaintiff next contends that only those design changes that require approval "from an employee of the FAA," as opposed to a designated engineering representative (DER), should factor into the impossibility analysis. Br. 34. That argument is misplaced. The FAA itself approved the design of the replacement carburetor parts. *See* p. 10, *supra*. And plaintiff admits that an FAA employee, rather than a DER, previously approved minor changes to the design of Kelly's gasket. *See* J.A. 1139, 1152, 1305. Plaintiff fails to connect her DER arguments to her substantive preemption arguments. Although she

makes unsupported assertions about the role of DERs in approving unspecified design changes, *see, e.g.*, Br. 10, 33, she does not articulate what changes she asserts a DER could have approved (if any) in this case.

Even if plaintiff had established that DERs may approve minor changes to PMAs or type designs, there is no basis for discrediting the DER approval process in the impossibility analysis. Congress has expressly authorized the FAA Administrator to delegate to qualified individuals matters related to the testing, inspections, and examinations necessary to issue certificates. 49 U.S.C. § 44702(d)(1)(A). Consistent with this authority, the Administrator of the FAA has provided for the appointment of private individuals "to act as [his] representatives." 14 C.F.R. § 183.1. Those representatives include DERs. As is relevant here, DERs certified as "engine engineering representative[s]" are authorized to "approve engineering information related to engine design, operation and service" when they "determine[] that information complies with" applicable regulations. 14 C.F.R. § 183.29(e). DERs may approve data "in support of an eventual design approval issued by the FAA" or contribute toward PMA authorization by "making findings relative to airworthiness requirements by test and computation," FAA Order 8110.37C, at 10, 24.

The Supreme Court has characterized DERs as "surrogates of the FAA," observing that they are "guided by the same requirements, instructions, and procedures as FAA employees." *Varig Airlines*, 467 U.S. at 807.

As the district court correctly recognized, when a DER approves the data to support a design change, it "is not some lower threshold of approval, but rather is a more efficient mechanism by which the FAA expedites its own grants of approval." J.A. 117. That some DERs are employed by aircraft manufacturers does not alter that conclusion. *See* Br. 34. DERs that are employed by manufacturers are subject to strict independence requirements. *See* FAA Order 8110.37C, at 11 (providing that a company DER must have "sufficient authority and independence" to "administer the pertinent regulation(s) effectively" without "any conflicting restraints"). When DERs perform their delegated functions, they "are legally distinct from and act independent of the organizations that employ them." *Swanstrom* v. *Teledyne Continental Motors, Inc.*, 531 F. Supp. 2d 1325, 1333 (S.D. Ala. 2008) (citation omitted).

This Court has already rejected plaintiff's argument that the involvement of DERs in the type-certification process defeats conflict preemption. *See Sikkelee*, 822 F.3d at 708. In the earlier appeal, plaintiff argued that type certificates should play no role in the conflict preemption analysis because the FAA delegates some responsibilities to DERs. *See id.* Dismissing plaintiff's logic, this Court observed that the "very same argument" failed to carry the day in *Mutual Pharmaceutical*, where the Supreme Court applied impossibility preemption notwithstanding the perceived imperfections of FDA. *Id.* (internal quotation marks and citation omitted).

3. Seeking to sidestep *PLIVA* and *Mutual Pharmaceutical*, plaintiff next contends that differences between the aviation and pharmaceutical industries cut against the application of impossibility preemption in the aviation context. *See* Br. 32-34. There is no valid justification for an industry-specific approach to preemption.

Plaintiff insists that the aviation and pharmaceutical industries differ with respect to the frequency of design changes and likelihood of design change approval. *See* Br. 32-33. But she offers no support for her supposition that aircraft manufacturers alter their products more frequently than drug manufacturers. To the contrary, the Government Accountability Office has found that drug manufacturers "often" revise drug labels as more data about drugs become available. Government Accountability Office, GAO-13-592, *Electronic Drug Labeling: No Consensus on the Advantages and Disadvantages of Its Exclusive Use* 9 (2013). Nor is there any evidence that the FAA approves design changes more readily than FDA. When an aircraft manufacturer requests a major type-design change, for example, the FAA must evaluate the applicant's substantiating and descriptive data, evidence demonstrating that the change complies with applicable requirements, and a statement certifying compliance with applicable regulatory requirements. *See* 14 C.F.R. § 21.97(a).

Plaintiff next attempts to distinguish the aviation and pharmaceutical industries by arguing that federal and state standards "seldom conflict" in the aviation context because both "prioritize[] safety" as their goal. Br. 33. But the Supreme Court has recognized that a shared regulatory goal does not eliminate the conflict between federal and state law, as "a common end hardly neutralizes conflicting means." *Crosby*, 530 U.S. at 379. The FAA prioritizes safety by requiring entities to obtain permission before modifying an FAA-approved design. *See* 14 C.F.R. §§ 21.93(a), 21.97. Where, as here, state standards require an immediate design modification, the federal and state standards can and do conflict.

4. Plaintiff offers two final arguments relevant to preemption, both unavailing.

First, plaintiff contends that Lycoming could have complied with both state and federal law had it simply stopped selling the O-320-D2C engine. Br. 37. *Mutual Pharmaceutical* squarely rejected a materially identical "stop-selling" argument. 570 U.S. at 488; *see* p. 40, *supra*.

Plaintiff attempts to distinguish *Mutual Pharmaceutical* by suggesting that Lycoming produced thirty-four other "lawful" versions of the O-320 engine, whereas the defendant in *Mutual Pharmaceutical* had just one "approved version" of the drug at issue. Br. 37, 38. That is incorrect. Just as the

defendant in *Mutual Pharmaceutical* produced other nonsteroidal anti-inflammatory drugs (NSAIDs) in addition to the drug at issue,[13] so too Lycoming produces other O-320 engines. And in *Mutual Pharmaceutical*, the Supreme Court held that it is no solution to suggest that a manufacturer stop selling any particular product. *See* 570 U.S. at 475.

Second, plaintiff urges this Court to revisit its earlier determination that type certificates bear on the traditional conflict-preemption analysis. *See* Br. 39-40; *Sikkelee*, 822 F.3d at 702. But the Court's earlier ruling was entirely correct on this point, as already discussed. *See* pp. 45-47, *supra*.

In an effort to revisit that ruling, plaintiff contends that this Court's reasoning in its earlier opinion would immunize aircraft manufacturers from liability. *See* Br. 39.[14] Not so. For starters, type certification does not preclude

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[13] *See United Research Laboratories Inc./Mutual Pharmaceutical Co; RX/GENERIC DRUGS—Profiles*, 78 Chain Drug Review 80 (Sept. 25, 2006) (describing Mutual Pharmaceutical's production of a generic drug called meloxicam); Food and Drug Administration, *Medication Guide for Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)* (Aug. 2007) <http://tinyurl.com/MeloxicamNSAID> (listing meloxicam as an NSAID).

[14] Plaintiff's amicus identifies a number of claims in earlier cases related to alleged aircraft design defects and argues that applying conflict-preemption principles would have foreclosed liability in those cases. *See* AAJ Br. 17-29. But all of those claims predated the Supreme Court's decision in *PLIVA*, which articulated the governing test for impossibility preemption. If the FAA's regime for approving design changes deals some plaintiffs an "unfortunate hand" in the wake of *PLIVA*, that is a matter for Congress or the FAA. *PLIVA*, 564 U.S. at 625.

liability if the type certificate leaves relevant design choices to the manufacturer's discretion or if the manufacturer can otherwise implement the proposed change unilaterally. Nor does type certification preclude a plaintiff from asserting claims of negligence that arise *after* the issuance of the type certificate, such as claims of a manufacturing defect, a failure to conform to the FAA-approved type design, or a failure to comply with a subsequent airworthiness directive.

Finally, plaintiff is incorrect in asserting that this Court's decision creates a perverse incentive for manufacturers to "alter their approval processes to require FAA input." Br. 40. As the district court correctly recognized, conflict preemption does not depend on whether the FAA approved the challenged design feature. J.A. 109 n.23. Instead, the dispositive question is whether a manufacturer could have changed the design without the FAA's "permission and assistance." *PLIVA*, 564 U.S. at 623-624. That straightforward framework produces clear rules and does not encourage gamesmanship.

In short, there is no legitimate basis for departing from the Supreme Court's conflict-preemption precedents. In the event this Court were to hold that plaintiff has valid state-law claims, therefore, it should hold that those claims would be preempted by federal law. And either for that reason or because plaintiff's state-law claims are invalid, the judgment of the district court should be affirmed.

CONCLUSION

The judgment of the district court should be affirmed.

Respectfully submitted,

s/ Kannon K. Shanmugam

CATHERINE SLAVIN
GORDON REES SCULLY MANSUKHANI LLP
2005 Market Street, Suite 2900
Philadelphia, PA 19103
(215) 717-4006

KANNON K. SHANMUGAM
AMY MASON SAHARIA
WILLIAMS & CONNOLLY LLP
725 Twelfth Street, N.W.
Washington, DC 20005
(202) 434-5000

APRIL 12, 2018

STATEMENT REGARDING ORAL ARGUMENT

Appellee AVCO Corporation respectfully submits that oral argument would be helpful to the disposition of this appeal given the complexity of the issues presented. Appellee requests 15 minutes of argument time.

CERTIFICATE OF BAR MEMBERSHIP

I, Kannon K. Shanmugam, counsel for appellee AVCO Corporation, hereby certify pursuant to Third Circuit Rule 28.3(d) that I am a member in good standing of the Bar of the United States Court of Appeals for the Third Circuit.

S/ Kannon K. Shanmugam
KANNON K. SHANMUGAM

APRIL 12, 2018

CERTIFICATE OF COMPLIANCE
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I hereby certify that:

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CERTIFICATE OF SERVICE

I, Kannon K. Shanmugam, counsel for appellee AVCO Corporation and a member of the Bar of this Court, certify that, on April 12, 2018, a copy of the foregoing brief was filed with the Clerk through the Court's electronic filing system. I further certify that, on April 12, 2018, hard copies of the foregoing brief were sent, by third-party commercial carrier for delivery overnight, to the Clerk and the following counsel:

Tejinder Singh
Goldstein & Russell, P.C.
7475 Wisconsin Avenue
Suite 850
Bethesda, MD 20814

David I. Katzman
Katzman Lampert
100 West Big Beaver Road
Suite 130
Troy, MI 48084

I further certify that all parties required to be served have been served.

S/ Kannon K. Shanmugam
KANNON K. SHANMUGAM