

IN THE SUPREME COURT OF OHIO

STATE OF OHIO *ex rel.* DAVE YOST, OHIO)
ATTORNEY GENERAL,)
)
 Plaintiff/Appellee,)
) Case No. 20-0092
 v.)
) On Appeal from the
 VOLKSWAGEN AKTIENGESELLSCHAFT D/B/A) Court of Appeals of Ohio,
 VOLKSWAGEN GROUP AND/OR VOLKSWAGEN) Tenth Appellate District,
 AG; AUDI AG; VOLKSWAGEN GROUP OF AMERICA,) Franklin County
 INC. D/B/A VOLKSWAGEN OF AMERICA, INC. OR)
 AUDI OF AMERICA, INC.; VOLKSWAGEN OF) Case No. 19AP-7
 AMERICA, INC.; AUDI OF AMERICA, LLC; DR. ING.)
 H.C. F. PORSCHE AG D/B/A/ PORSCHE AG; and)
 PORSCHE CARS NORTH AMERICA, INC.,)
)
 Defendants/Appellants.)

**BRIEF OF *AMICI CURIAE* CHAMBER OF COMMERCE OF THE UNITED STATES
OF AMERICA, OHIO CHAMBER OF COMMERCE, AND ALLIANCE FOR
AUTOMOTIVE INNOVATION SUPPORTING DEFENDANTS/APPELLANTS**

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TABLE OF CONTENTS

	Page
TABLE OF AUTHORITIES	ii
STATEMENT OF INTEREST OF <i>AMICI CURIAE</i>	1
SUMMARY OF ARGUMENT	2
STATEMENT OF THE FACTS	5
BACKGROUND	5
A. For Decades, EPA Has Comprehensively Regulated Manufacturers’ Model-Wide Changes to Vehicles in Production and in the Field	5
B. Model-Wide Changes to In-Use Vehicles to Address Emission Issues Inherently Relate to the Original Installation of Emission Control Systems	8
C. Model-Wide Changes by Manufacturers Are Increasingly Important	11
ARGUMENT IN SUPPORT OF PROPOSITIONS OF LAW.....	12
<u>Proposition of Law No. 1</u> : The Clean Air Act expressly preempts state-law claims against motor vehicle manufacturers arising from model-wide changes to in-use vehicles.	13
<u>Proposition of Law No. 2</u> : The CAA impliedly preempts state-law claims against motor vehicle manufacturers arising from model-wide changes to in-use vehicles.....	16
CONCLUSION.....	19
CERTIFICATE OF SERVICE	21

TABLE OF AUTHORITIES

	<u>Page(s)</u>
CASES	
<i>Allway Taxi, Inc. v. City of New York</i> , 340 F. Supp. 1120 (S.D.N.Y.1972).....	14, 15
<i>Arizona v. United States</i> , 567 U.S. 387, 132 S.Ct. 2492, 183 L.Ed.2d 351 (2012).....	16
<i>Darby v. A-Best Products Co.</i> , 102 Ohio St.3d 410, 2004-Ohio-3720, 811 N.E.2d 1117	12
<i>Engine Mfrs. Ass’n v. EPA</i> , 88 F.3d 1075 (D.C.Cir.1996).....	4, 16
<i>In re Volkswagen “Clean Diesel” Mktg., Sales Practices, & Prods. Liab. Litig.</i> , 310 F. Supp. 3d 1030 (N.D.Cal.2018)	18
<i>In re Volkswagen “Clean Diesel” Mktg., Sales Practices, and Prods. Litig.</i> , 959 F.3d 1201 (9th Cir.2020)	3, 6, 7, 18
<i>Jackson v. General Motors Corp.</i> , 770 F. Supp. 2d 570 (S.D.N.Y.2011).....	13
<i>Morales v. Trans World Airlines, Inc.</i> , 504 U.S. 374, 112 S.Ct. 2031, 119 L.Ed.2d 157 (1992).....	13
<i>Motor Vehicles Mfrs. Ass’n of U.S. v. N.Y. State Dep’t of Env’tl Conserv.</i> , 79 F.3d 1298 (2d Cir.1996).....	16
<i>People ex rel. Madigan v. Volkswagen Aktiengesellschaft</i> , Ill.Cir.Ct. No. 16-14507, 2018 WL 3384883 (June 5, 2018).....	18
DOCKETED CASES	
<i>State of Ohio ex rel. DeWine v. Volkswagen Aktiengesellschaft</i> , No. 16CV-10206 (Ohio Com. Pl.)	11
<i>United States v. Volkswagen AG</i> , No. 16-CR-20394 (E.D. Mich.)	15
CONSTITUTIONAL AND STATUTORY PROVISIONS	
42 U.S.C. 7507	5, 17
42 U.S.C. 7521(a)(1).....	5, 6

42 U.S.C. 7521(d)(1)	6
42 U.S.C. 7522(a)(1).....	5
42 U.S.C. 7522(a)(3)(A)	7
42 U.S.C. 7522(a)(3)(B)	7
42 U.S.C. 7525(a)(1).....	5, 6
42 U.S.C. 7541(a)(1).....	5
42 U.S.C. 7541(a)(3).....	6
42 U.S.C. 7541(b)	6
42 U.S.C. 7541(b)(2)	5
42 U.S.C. 7541(b)(2)(C)	6
42 U.S.C. 7541(h)(2)	3
42 U.S.C. 7543(a)	2, 5, 13, 15
42 U.S.C. 7543(b)	5, 17
42 U.S.C. 7543(d).....	15
Pub. L. No. 91-604, § 7(a)(3), 84 Stat. 1676, 1693 (1970).....	7
Pub. L. No. 101-549, § 228(b), 104 Stat. 2399, 2507 (1990).....	7
U.S. Constitution, Article VI, cl. 2	3
RULES AND REGULATIONS	
40 C.F.R. 85.1802(a).....	10
40 C.F.R. 85.1902(b)(2).....	7
40 C.F.R. 85.1903	7
40 C.F.R. 85.1904(a).....	11
40 C.F.R. 86.1803-01	7
40 C.F.R. 86.1805-04.....	6
40 C.F.R. 86.1805-12(a)	6

40 C.F.R. 86.1805-17.....	6
40 C.F.R. 86.1806-17.....	12
40 C.F.R. 86.1809-12.....	7
40 C.F.R. 86.1823-08.....	6
40 C.F.R. 86.1824-08.....	6
40 C.F.R. 86.1825-08.....	6
40 C.F.R. 86.1842-01(b)(1)	9
40 C.F.R. 86.1842-01(b)(2)	9
40 C.F.R. 86.1845-04.....	12
40 C.F.R. 86.1848-01(c)(2).....	6
40 C.F.R. 1068.501	7
<i>Determination of Significance for Nonroad Sources and Emission Standards for New Nonroad Compression-Ignited Engines At or Above 37 Kilowatts, 59 Fed. Reg. 31,306 (June 17, 1994)</i>	14
OTHER AUTHORITIES	
Compliance Div., Office of Transportation and Air Quality, EPA, 2014-2017 <i>Progress Report: Vehicle and Engine Compliance Activities 7 (Apr. 2019)</i>	3
EPA, Advisory Circular No. 2B, <i>Field Fixes Related to Emission Control-Related Components (Mar. 17, 1975)</i>	8, 10
EPA, <i>Technical Report: History and Description of the EPA Motor Vehicle Fuel Economy Program (EPA-AA-CPSB-82-02) (Sept. 1982)</i>	9
Letter, Automobile Mfrs. Ass’n to Elliot L. Richardson, Aug. 27, 1970, <i>reprinted in 1 CAA Legislative History</i>	19

The Chamber of Commerce of the United States of America, the Ohio Chamber of Commerce, and the Alliance for Automotive Innovation respectfully submit this brief as *amici curiae* in support of Defendants-Appellants Volkswagen Aktiengesellschaft et al. (“Volkswagen”).

STATEMENT OF INTEREST OF *AMICI CURIAE*

The Alliance for Automotive Innovation (“Auto Innovators”) is a nonprofit trade association representing the manufacturers, tier one suppliers, and value chain partners that produce nearly 99 percent of all cars and light-duty trucks sold in the United States. Auto Innovators was formed in January 2020 by the combination of the nation’s two largest automobile associations, the Association of Global Automakers and the Alliance of Automobile Manufacturers.¹ Auto Innovators’ mission is to protect and promote the legal and policy interests of its members that design, manufacture, and sell motor vehicles throughout the United States. As described below, Auto Innovators’ members need the flexibility to implement routine, model-wide updates to vehicles in production and in the field. Their ability to do so would be severely jeopardized if every state and locality could regulate and penalize those changes, potentially in a way that conflicts with the judgment of the U.S. Environmental Protection Agency (“EPA”) about whether a change constitutes prohibited tampering with emission controls.

¹ Auto Innovators’ members include APTIV, Aston Martin Lagonda of North America, BMW Group, Robert Bosch, GmbH, BYTON, Cruise Automation, Denso, FCA US, Ferrari North America, Ford Motor Co., General Motors Co., Harman, American Honda Motor Co., Hyundai Motor America, Intel, Isuzu Motors America, Jaguar Land Rover, Karma Automotive, Kia Motors America, Local Motors, Maserati North America, Mazda, McLaren Automotive, Mercedes-Benz USA, Mitsubishi Motors, Nissan North America, Inc., NXP, Panasonic, Porsche Cars N.A., PSA North America, RV Industry Association, Sirius XM, Subaru of America, Suzuki Motor of America, Texas Instruments, Toyota Motor North America, Volkswagen Group of America, and Volvo Car USA.

The Chamber of Commerce of the United States of America (“Chamber”) is the world’s largest business federation. It directly represents approximately 300,000 members and indirectly represents the interests of more than three million businesses and professional organizations of every size, in every industry sector, from every region of the country. An important function of the Chamber is to represent these interests in matters before Congress, the Executive Branch, and the courts, including this Court. To that end, the Chamber regularly files *amicus curiae* briefs in cases that raise issues of concern to the nation’s business community.

Founded in 1893, the Ohio Chamber of Commerce (“Ohio Chamber”) is Ohio’s largest and most diverse statewide business advocacy organization. It works to promote and protect the interests of its more than 8,000 business members and the thousands of Ohioans they employ, while building a more favorable Ohio business climate. As an independent point of contact for government and business leaders, it is a respected participant in the public policy arena.

The members of both the Chamber and the Ohio Chamber depend on a stable, predictable, and nationally uniform system for regulating emissions from motor vehicles. Accordingly, they have a significant interest in ensuring that state and local regulators cannot impose their own regulatory burdens on manufacturers’ model-wide changes to vehicles that have already been sold.

SUMMARY OF ARGUMENT

As several courts have recognized, the Clean Air Act (“CAA”) gives EPA exclusive authority to regulate the design changes and software updates that manufacturers commonly make to their vehicles on a model-wide basis. The Act broadly preempts all state and local regulation “relating to the control of emissions from new motor vehicles,” 42 U.S.C. 7543(a), and establishes a comprehensive regulatory regime to govern manufacturers’ model-wide changes to both new and in-use vehicles. Among other things, Congress required EPA to collect testing data on post-sale emissions from manufacturers and to supervise post-sale, model-wide changes to emission

systems. By contrast, Congress prohibited states from requiring manufacturers to conduct post-sale testing. *Id.* 7541(h)(2). Accordingly, for fifty years, a manufacturer’s post-sale, model-wide emission conduct has been governed exclusively by EPA regulations and guidance documents (subject to a limited exception for California), which establish a uniform, orderly process for making changes to both new vehicles and vehicles in the field. The CAA’s text, structure, and history thus demonstrate that state-law tampering claims arising from manufacturers’ post-sale, model-wide changes are preempted under the Supremacy Clause. U.S. Constitution, Article VI, cl. 2.

The Tenth District’s contrary decision, like the Ninth Circuit’s recent decision on the same issue, misapprehends the way manufacturers design, produce, and update their vehicles in practice. Both opinions suggest that determining whether any given post-sale change amounts to “tampering” is a simple and uncontroversial task. Tenth District Decision ¶ 32; *In re Volkswagen “Clean Diesel” Mktg., Sales Practices, and Prods. Litig.*, 959 F.3d 1201, 1222 (9th Cir.2020). That is decidedly incorrect. Every year, manufacturers update the software design and calibration of their engines and emission control technology in millions of cars, both to resolve problems identified in the field and to improve their vehicles’ overall performance, reliability, driveability, safety, and emission control.² Post-sale changes often involve complex technical justifications and tradeoffs, *e.g.*, reducing emissions of certain pollutants while increasing emissions of others. Although one regulator might consider a post-sale change to an emission control device to be an improvement, another regulator might conclude that it makes pollution worse and thus constitutes

² See Compliance Div., Office of Transportation and Air Quality, EPA, *2014-2017 Progress Report: Vehicle and Engine Compliance Activities 7* (Apr. 2019) (noting that between 2014 and 2017, manufacturer recalls affected the emission control systems in over 24 million vehicles), available at <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100WKFC.pdf>.

improper tampering in violation of the CAA. Since the 1970s, EPA has provided guidance to manufacturers to allow them to undertake those changes in the field to correspond to what the manufacturer implements (or would implement) on the production line, without violating the federal tampering prohibition. If manufacturers can no longer rely on EPA's determination when making nationwide post-sale changes to emission control systems, they face the risk of substantial liability from state and local regulators. This would discourage *all* post-sale changes, including those that benefit the economy and the environment. This is clearly not what Congress intended.

Yet the Tenth District's decision paves the way for states and localities to apply their own tampering prohibitions and penalties to post-sale, model-wide changes. This includes even a situation where the manufacturer has either received assurance from EPA that a particular change does not constitute tampering or has taken whatever other steps EPA deems appropriate. Allowing every state and local government to insert themselves into this federally regulated process would result in "an anarchic patchwork of federal and state regulatory programs." *Engine Mfrs. Ass'n v. EPA*, 88 F.3d 1075, 1079 (D.C.Cir.1996) ("*EMA*") (internal quotation marks and citation omitted). That would "create nightmares for the manufacturers," *id.*, and the automotive industry more broadly. The ensuing regulatory chaos would also harm consumers and potentially the environment by discouraging and inhibiting manufacturers' ability to make important and beneficial updates to their vehicles, and it would make EPA's congressionally mandated job of regulating manufacturers' post-sale, model-wide conduct virtually impossible.

To be clear, manufacturers should not be able to evade responsibility for engaging in unlawful tampering, at the factory or for vehicles that have already been sold. *Amici* write to underscore that, just as with new vehicles, there is already a comprehensive and orderly process for federal regulatory oversight of model-wide design changes introduced in the field. That

congressionally mandated framework would be disrupted if states and localities could regulate and penalize manufacturers' post-sale, model-wide changes and updates.

STATEMENT OF THE FACTS

Amici point to the statement of the case and facts set forth in Volkswagen's brief.

BACKGROUND

A. For Decades, EPA Has Comprehensively Regulated Manufacturers' Model-Wide Changes to Vehicles in Production and in the Field

The CAA authorizes EPA to “prescribe ... standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines,” and those standards apply “to such vehicles and engines for their useful life.” 42 U.S.C. 7521(a)(1). By contrast, § 209(a) of the CAA prohibits states from “adopt[ing] or attempt[ing] to enforce any standard relating to the control of emissions from new motor vehicles.” *Id.* 7543(a).³

To ensure manufacturer compliance with EPA standards, the CAA directs EPA to require testing of “any new motor vehicle or new motor vehicle engine submitted by a manufacturer to determine whether such vehicle or engine conforms with [emission] regulations.” *Id.* 7525(a)(1); *see also id.* 7522(a)(1), 7541(a)(1), (b)(2). This includes “durability” testing, which assesses whether the vehicle will comply with emission standards throughout its entire useful life. 40

³ The CAA permits California to promulgate its own emission standards with EPA approval. Other States may adopt California's standards, but they may not adopt their own unique standards that might require manufacturers to create a “third vehicle.” 42 U.S.C. 7507, 7543(b). California has adopted regulations that parallel many of the EPA regulations described in this section. Because Ohio does not purport to enforce California's standards, however, this brief focuses on the federal regulatory framework.

C.F.R. 86.1823-08, 86.1824-08, 86.1825-08, 86.1805-17. Throughout this process, manufacturers interact extensively with EPA technical staff to provide information and address any concerns.

Manufacturers can market a new vehicle only upon obtaining a “certificate of conformity” from EPA confirming that the vehicle complies with applicable emission standards. A certificate of conformity applies only for a single model year; the manufacturer must apply for and obtain a new certificate for each succeeding model year, even if the vehicle configuration remains unchanged. 42 U.S.C. 7525(a)(1). Manufacturers must certify to EPA that their models will comply with federal standards throughout their “useful life,” which is defined as ten years or 120,000 miles. *Id.* 7521(a)(1), (d)(1); *see* 40 C.F.R. 86.1848-01(c)(2), 86.1805-04, 86.1805-12(a), 86.1805-17. And manufacturers must provide a warranty to vehicle purchasers for emission systems and remedy problems with those systems in the field. 42 U.S.C. 7541(a)(3), (b)(2)(C).

EPA’s regulation of vehicle emissions thus does not stop once the initial certification process is complete and vehicles have been sold. Various performance and emission issues can and do arise in the field. This is particularly so as emission controls have become increasingly complex and electronically controlled. Thus, contrary to the Ninth Circuit’s recent suggestion that Volkswagen’s post-sale changes were unusual, *In re Volkswagen*, 959 F.3d at 1206, manufacturers often make model-wide changes to vehicles that have already been sold. EPA continues to exercise authority to ensure those vehicles remain in compliance with emission standards for their full useful lives. For example, EPA must “establish ... methods and procedures” to test “whether, when in actual use” vehicles “compl[y] with ... emission standards.” 42 U.S.C. 7541(b). EPA regulations also require manufacturers to report emission-related defects, including software

malfunctions that interfere with the vehicle's continued compliance with emission standards. 40 C.F.R. 85.1902(b)(2); *id.* 85.1903, 1068.501.

As particularly relevant here, EPA regulates manufacturers' model-wide design changes to in-use vehicles in the field (*i.e.*, field fixes). Among other things, EPA enforces the CAA's prohibition on tampering. As originally enacted in 1970, the tampering prohibition made it unlawful "for *any manufacturer* or dealer knowingly to remove or render inoperative" any emission control device or design "*after such sale and delivery to the ultimate purchaser.*" Pub. L. No. 91-604, § 7(a)(3), 84 Stat. 1676, 1693 (1970) (emphases added). In other words, contrary to the Ninth Circuit's recent suggestion, Congress anticipated "intentional tampering with post-sale vehicles" by manufacturers, *In re Volkswagen*, 959 F.3d at 1225, and tasked EPA with penalizing that conduct. In 1990, Congress amended the tampering prohibition to broaden its scope. Today, the provision makes it unlawful for "*any person* knowingly to remove or render inoperative any ... device or element of design [installed on or in a certified motor vehicle] after [its] sale and delivery to the ultimate purchaser." 42 U.S.C. 7522(a)(3)(A) (emphasis added); *id.* 7522(a)(3)(B) (making it unlawful for any person to manufacture, sell, or install a defeat device); *see also* Pub. L. No. 101-549, § 228(b), 104 Stat. 2399, 2507 (1990).

Importantly, it is not always clear whether a particular design or calibration change constitutes "tampering" or a "defeat device." EPA regulations allow designs that reduce the effectiveness of a vehicle's emission controls where necessary to protect the vehicle against damage or accident in particular field conditions, such as hot or cold conditions or high altitude, and evaluating such justifications is often technically complex. *See, e.g.*, 40 C.F.R. 86.1803-01, 86.1809-12. Further, many in-use changes to emission control software may increase emissions of one pollutant while decreasing emissions of others, without affecting the vehicles' compliance

with applicable emission standards. As just one example, measures to reduce a diesel vehicle's emissions of nitrogen oxides ("NOx") tend to increase emissions of carbon dioxide ("CO₂") and particulates. Legitimate in-use changes thus often involve tradeoffs between different emissions. EPA works closely with manufacturers to differentiate justified design changes that comply with emission regulations from those that constitute unlawful "tampering" or "defeat devices."

Over forty years ago, EPA recognized that manufacturers could legitimately be uncertain as to whether in-use changes involving emission control components violate the CAA's tampering prohibition. EPA accordingly issued a guidance document to "advise manufacturers on the issue of how [the tampering prohibition] potentially affects field fixes, and to set forth a procedure by which manufacturers can assure themselves that EPA will not consider a field fix to be a violation" of that provision. EPA, Advisory Circular No. 2B, *Field Fixes Related to Emission Control-Related Components*, at 1 (Mar. 17, 1975) ("Field Fix Guidance"). For example, the guidance establishes, among other things, that "a change to a certified vehicle ... that is identical in all respects to a running change [to new vehicles being produced and] that is approved for incorporation in new vehicles by the manufacturer" does not constitute prohibited tampering. *Id.* at 2-3. The guidance also confirms that EPA retains jurisdiction to review all model-wide changes to in-use vehicles. *Id.* at 3. EPA's oversight process provides needed certainty and uniformity for manufacturers making updates to vehicles on a model-wide basis.

B. Model-Wide Changes to In-Use Vehicles to Address Emission Issues Inherently Relate to the Original Installation of Emission Control Systems

As noted, manufacturers routinely need to modify the emission systems of in-use vehicles on a model-wide basis to address performance- or emission-related problems identified in vehicles operating in the field. Manufacturers and EPA invest significant resources to investigate the cause

of a problem, identify opportunities for improvement, and engineer solutions. These solutions come in several different forms.

A manufacturer typically begins by engineering a solution to be implemented on the production line—*i.e.*, to vehicles that have not yet been sold. *See* EPA, *Technical Report: History and Description of the EPA Motor Vehicle Fuel Economy Program* (EPA-AA-CPSB-82-02), at 11 (Sept. 1982) (recognizing that “[m]ost manufacturers make changes to their product lines during the model year,” which may include “design or specification changes to existing models”). These changes to production vehicles, known as “running changes,” are made for “a variety of reasons,” including, among others, “improvements to driveability, improvements to fuel economy, [and] reductions in emissions.” *Id.* at 11-12. Before making a running change, the manufacturer must apply to EPA for an amendment to the certificate of conformity for a specific model year vehicle. *See* 40 C.F.R. 86.1842-01(b)(1). EPA can require additional testing to ensure that the vehicles will continue to meet applicable emissions standards throughout their useful lives. *Id.* 86.1842-01(b)(2).

Once a running change is approved, manufacturers often seek to make the same (or a similar) change to vehicles of the same model type that have already left the production line—*i.e.*, post-sale, in-use vehicles. By doing so, manufacturers preserve consistency across a vehicle model population and ensure that all vehicles of that model type receive the benefits of the design change, regardless of when they were produced. Many times such changes are important to avoid potential vehicle damage and for safety, such as to prevent engine stalling. Indeed, manufacturers typically maintain a single “latest and greatest” software package for a vehicle model, so that when a vehicle in the field comes in for service, it is updated to the latest software installed on new vehicles. Similarly, manufacturers may seek to implement the design change on vehicles from *prior* model

years, and problems with a design or in particular operating conditions may not become apparent immediately and may take time to investigate and resolve with a design change. Because emission control technologies often carry over across multiple model years, production vehicles may use emission control technologies that are identical or very similar to the technologies used on prior-model-year vehicles. In such cases, it is common industry practice for a manufacturer that improves the design or configuration of the emission controls on its production vehicles to seek to implement those same changes on prior-model-year, in-use vehicles that use the same or similar underlying technologies.

Manufacturers accomplish model-wide changes to in-use vehicles in one of two ways: field fixes and recalls. Since 1975, EPA has defined a “field fix” as “[a] modification, removal or replacement of an emission-control related component by a manufacturer or dealer” or a “revision by a manufacturer ... to specifications or maintenance practices for emission-control related components on vehicles that have left the assembly line.” Field Fix Guidance at 1. Field fixes typically are designed to apply to all vehicles of a particular model nationwide, and are implemented as vehicles are taken in for service.

Manufacturers can also make post-sale, model-wide changes through a recall of affected vehicles, for safety or emission reasons. If EPA determines that an emission-related defect causes a “substantial number” of vehicles not to comply with emission standards, EPA may order a recall to require the manufacturer to remedy the defect on a model-wide basis. 40 C.F.R. 85.1802(a). Alternatively, the manufacturer may pursue a voluntary recall campaign governed by EPA regulations, which contemplate that manufacturers will initiate voluntary recalls to implement

“modifications, alterations, repairs, corrections, adjustments, or other changes ... to correct the vehicles or engines.” *Id.* 85.1904(a).⁴

C. Model-Wide Changes by Manufacturers Are Increasingly Important

Model-wide changes to vehicles on the production line and in the field have become more common and more critical over time, for two principal reasons. First, as motor vehicle emission standards have become more stringent, emission control technology has become increasingly complex. To comply with today’s emission standards, most engines use a combination of various emission control systems. One illustrative example is the exhaust gas recirculation (“EGR”) system, which recirculates a portion of the engine’s exhaust back into the intake air and combustion chamber to reduce emissions of NO_x, but also tends to increase particulate and CO₂ emissions and reduce fuel economy. EGR systems were first used in diesel passenger cars in the 1990s and have become more sophisticated over time. Electronically controlled “cooled” EGR systems were introduced in the early 2000s, as more stringent emission standards created higher demands on EGR usage. These modern EGR systems are “active” controls, meaning they do not operate continuously at one hundred percent capacity. Instead, they are electronically controlled and calibrated to respond to different operating conditions (such as engine speed and load, altitude, temperature, and the function of other emission controls on the vehicle).

Not surprisingly, the increasing complexity and computerization of emission controls has resulted in an increased need for software updates after vehicles are sold. Manufacturers carefully calibrate their emission control systems, and they may adjust the calibrations throughout the model year to redress acute problems and to optimize emission control, reliability, driveability, safety,

⁴ The software updates that Ohio seeks to regulate here were installed as part of a voluntary recall. *See, e.g.,* First Am. Compl. ¶ 91, *State of Ohio ex rel. DeWine v. Volkswagen Aktiengesellschaft*, No. 16CV-10206 (Ohio Com. Pl. Sept. 25, 2017) (alleging that “during recalls” the “software update” that forms the basis of Ohio’s claims was “installed”).

and performance. As addressed above, manufacturers apply these design updates to production vehicles through running changes that are approved by EPA. Manufacturers typically then disseminate these improvements to vehicles in the field through software updates to conform the entire fleet—including prior-model-year vehicles that use the same underlying technology—to the corrected or improved design.

The second factor contributing to the greater incidence of in-use changes is EPA’s adoption of monitoring and testing requirements for in-use vehicles. Starting in the 1990s, EPA adopted onboard diagnostic (“OBD”) system monitoring requirements. *See* 40 C.F.R. 86.1806-17. These OBD systems (which are part of the vehicle’s onboard computer) monitor emission control components, detect malfunctions, and illuminate an indicator light notifying drivers to seek service in the event of a malfunction. By generating feedback on the in-use performance of emission control components, OBD systems make it easier for manufacturers to identify failures of the emission control systems in actual operating conditions that may require design corrections in the field. The OBD systems themselves involve complex software that may also require corrections. Similarly, EPA has promulgated regulations requiring manufacturers to test in-use vehicles procured from customers for compliance with emission standards. *Id.* 86.1845-04. This testing process also increases manufacturers’ ability to detect—and correct—failures in the field.

As a result of these developments, model-wide changes to in-use vehicles are more common today than in the 1970s, and that trend will only continue, as manufacturers continue to rely on complex, computerized emission controls and monitoring systems and EPA continues to require monitoring and in-use testing.

ARGUMENT IN SUPPORT OF PROPOSITIONS OF LAW

As this Court has recognized, the “critical question” in any preemption case is “whether Congress intended state law to be superseded by federal law.” *Darby v. A-Best Products Co.*, 102

Ohio St.3d 410, 2004-Ohio-3720, 811 N.E.2d 1117, ¶ 27. Here, the text, structure, and history of the CAA make clear that Congress intended to give EPA exclusive jurisdiction to supervise and regulate the design changes and software updates that manufacturers make on a nationwide, model-wide basis to both new and in-use vehicles. Any other result would create chaos for vehicle manufacturers by subjecting their model-wide changes, field fixes, and recalls—which affect millions of cars each year—to not only EPA’s expert, scientific judgment, but also the judgment of every county and state. This would require manufacturers to pre-clear any changes with state and local officials before implementing them, or risk significant liability for doing so. Accordingly, the Court should reverse the Tenth District’s judgment and hold that the CAA preempts Ohio’s claims, either expressly or impliedly.

Proposition of Law No. 1: The Clean Air Act expressly preempts state-law claims against motor vehicle manufacturers arising from model-wide changes to in-use vehicles.

Congress included numerous provisions in the CAA expressing its intent that EPA have exclusive authority to regulate manufacturers’ model-wide changes to the emission control systems of in-use vehicles. The CAA expressly bars state and local governments from “adopt[ing] or attempt[ing] to enforce *any* standard *relating to* the control of emissions from new motor vehicles.” 42 U.S.C. 7543(a) (emphases added). The State argues (and the Tenth District accepted) that the provision says nothing about in-use vehicles and thus bars only state and local control over new vehicle emissions. Mem. 8. But a state regulation need not *directly* target new vehicles in order to be preempted. The plain language of the statute is clearly broader in scope. As the U.S. Supreme Court has explained, the ordinary meaning of “related to” is “a broad one . . . and the words thus express a broad pre-emptive purpose.” *Morales v. Trans World Airlines, Inc.*, 504 U.S. 374, 383, 112 S.Ct. 2031, 119 L.Ed.2d 157 (1992); *see also Jackson v. General Motors*

Corp., 770 F. Supp. 2d 570, 573 (S.D.N.Y.2011) (describing 42 U.S.C. 7543(a) as a “sweeping preemption provision”).

As particularly relevant here, courts have recognized that the CAA can preempt the application of state and local regulations to manufacturers’ actions with respect to vehicles that have already been sold. If “a state or locality is free to impose its own emission control standards the moment after a new car is bought and registered,” it would result in “an obvious circumvention of the Clean Air Act and would defeat the congressional purpose of preventing obstruction to interstate commerce.” *Allway Taxi, Inc. v. City of New York*, 340 F. Supp. 1120, 1124 (S.D.N.Y.1972). In the parallel context of nonroad engines, EPA explained that “Congress intended the preemption provisions of Section 209, as applied to nonroad engines, to be analogous to the preemption provisions as applied to motor vehicles” and “certain state regulations that may be characterized as ‘in-use’ regulations may be preempted” if they “amount to a standard relating back to the original design of the engine by the original engine manufacturer.” *Control of Air Pollution; Determination of Significance for Nonroad Sources and Emission Standards for New Nonroad Compression-Ignited Engines At or Above 37 Kilowatts*, 59 Fed. Reg. 31,306, 31,313, 31,330-31 (June 17, 1994) (noting a state regulation requiring retrofit of near-new nonroad engines would be preempted because, *inter alia*, it is “adverse to ... the principles laid out in *Allway Taxi*”). Such regulations “are effectively regulations on the design of new engines.” *Id.*

The CAA expressly preempts state and local regulation of manufacturers’ post-sale, model-wide changes to emission systems. As explained, post-sale changes accomplished through field fixes and recalls inherently relate to the original design and installation of emission systems and typically are implemented to correct problems with or improve the original design. *See supra* pp. 8-12. Many (if not most) of these changes correspond to changes in the design of new production

vehicles; the manufacturer’s goal is to maintain a single configuration across any given model type, fixing problems across the entire vehicle population.⁵ State and local attempts to regulate manufacturers’ ability to conform in-use vehicles to the design of new vehicles thus plainly “relat[e] to the control of emissions from new motor vehicles.” 42 U.S.C. 7543(a). And as discussed above, *supra* pp. 5-8, numerous other provisions of the CAA confirm that EPA exercises substantial authority over a manufacturer’s post-sale, changes to emission systems on a model-wide basis, and that Congress intended the express preemption provision to bar states from “attempt[ing] to enforce” those same “standard[s].”

In rejecting a finding of preemption, the Tenth District reasoned that “[a] clear purpose of the CAA is to reduce air pollution” and that Congress intended states to “maintain significant authority in regulating conduct affecting motor vehicle emissions.” Tenth District Decision ¶ 24. The Tenth District pointed to the CAA’s savings clause, which reserves for state and local governments the authority “otherwise to control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles.” 42 U.S.C. 7543(d). That provision, however, does not give states and localities jurisdiction to regulate manufacturers’ model-wide changes to their vehicles. Instead, as other courts have held, the provision allows states and localities to enact regulations that place “the burden of compliance ... on individual [vehicle] owners and not on manufacturers and distributors.” *Allway Taxi*, 340 F. Supp. at 1124.

Regulations permitted by the CAA’s savings clause include transportation measures governing the operation of individual vehicles, “such as carpool lanes, restrictions on car use in

⁵ Indeed, the software updates at issue in this case were initially installed as a “new software function in *new* [vehicles] being sold in the United States, and *later* installed [] in *existing* [vehicles] through software updates during maintenance.” Rule 11 Plea Agreement, Ex. 2 ¶ 50, *United States v. Volkswagen AG*, No. 16-CR-20394 (E.D.Mich. Mar. 10, 2017) (emphases added).

downtown areas, and programs to control extended idling of vehicles.” *EMA*, 88 F.3d at 1094. They also include measures to ensure that individual vehicles (rather than classes or models of vehicles) remain in compliance with emission standards. For example, states and localities have set up vehicle inspection and maintenance programs tied to vehicle registration; those programs can detect whether individual vehicles’ emission control systems have failed and, if so, can, at the manufacturer’s expense, “require their owners to undertake repairs.” *Motor Vehicles Mfrs. Ass’n of U.S. v. N.Y. State Dep’t of Env’tl Conserv.*, 79 F.3d 1298, 1303 (2d Cir.1996). In the same vein, states and localities have adopted their own tampering prohibitions. Until now, however, these prohibitions have never been applied to manufacturers’ model-wide corrections and updates. Instead, such measures have been applied to prevent after-market participants from modifying individual vehicles such that they no longer conform to the manufacturer’s design. The CAA does not preempt these kinds of measures, all of which support—rather than undermine—the goal of promoting uniform emission controls across a vehicle model population.

Proposition of Law No. 2: The CAA impliedly preempts state-law claims against motor vehicle manufacturers arising from model-wide changes to in-use vehicles.

Under well-settled preemption principles, state regulation is preempted whenever it “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Arizona v. United States*, 567 U.S. 387, 399-400, 132 S.Ct. 2492, 183 L.Ed.2d 351 (2012). The CAA establishes a comprehensive scheme for regulating vehicle emissions. As explained above, Congress charged EPA with supervising the changes manufacturers make on a model-wide basis to vehicles in the field. *See supra* pp. 5-8. EPA has nationwide jurisdiction, which is critical to assuring uniformity of regulation. EPA also has substantial information about vehicle emissions and the nuances of emission control technology, stemming from its deep involvement in the testing, monitoring, and certification processes. And EPA has the technical

expertise necessary to evaluate post-sale, model-wide changes in a manner that balances performance, emissions, and other considerations, such as whether a change that reduces the effectiveness of emission controls is justified to prevent damage to a vehicle or an accident. Allowing Ohio and other state and local regulators to pursue state-law claims based on those changes would greatly interfere with the congressional plan for nationwide regulation of vehicle emissions.

For one thing, allowing state and local regulation of model-wide changes would create considerable uncertainty for manufacturers, ultimately hindering their ability to make important design changes and software updates to in-use vehicles. Any particular change could draw scrutiny (and potential liability) from any one of thousands of state and local regulators. The manufacturer would have to choose from an array of undesirable or infeasible options. It could seek assurances of approval from each and every regulator; if one regulator considered an in-use change to be unlawful tampering, the manufacturer would have to redesign the change to address its concerns and then restart the process of obtaining approval from EPA and other jurisdictions. Even if it were possible to get input from all jurisdictions before introducing an update, the manufacturer might then have to treat vehicles of the same model year differently in different jurisdictions, depending on whether the jurisdiction has approved or disapproved the proposed in-use change. That, however, is both impractical and contrary to Congress's intent to avoid subjecting manufacturers to requirements that vary across States (but for limited exceptions involving California's standards, which are not relevant here). *See* 42 U.S.C. 7507, 7543(b).

The Tenth District gave no weight to the concern about subjecting manufacturers to multiple, potentially conflicting regulatory schemes. In the court's view, this concern was "diminished" because the manufacturing conduct at issue "involves tampering with the existing

emission control systems to reduce their effectiveness.” Tenth District Decision ¶ 32; *see also In re Volkswagen Litig.*, 959 F.3d at 1222 n.22 (dismissing Volkswagen’s concern about inconsistent regulation as “inapplicable” because local anti-tampering rules are “identical” to the federal anti-tampering prohibition). That reasoning erroneously assumes that there will be a consensus among regulators about whether a particular change constitutes tampering. As explained, that is not always the case, as such changes commonly raise complex technical questions about whether they are justified or result in tradeoffs among different types of pollutant emissions. *See supra* pp. 3-4. If every state and local regulator were free to evaluate in-use changes under their own criteria, some would inevitably reach different conclusions from EPA about the lawfulness of certain changes.⁶

Relatedly, permitting state-law claims would “hamstring” EPA’s ability to regulate manufacturers’ post-sale software updates. *People ex rel. Madigan v. Volkswagen Aktiengesellschaft*, Ill.Cir.Ct. No. 16-14507, 2018 WL 3384883, at *13 (June 5, 2018). The potential for state and local regulators to treat manufacturer updates as tampering could inhibit resolution of compliance or enforcement issues with EPA, as the threat of state and local inquiries

⁶ Here, Ohio’s position generally aligns with EPA’s, as both maintain that Volkswagen installed impermissible defeat devices. Even so, Ohio’s claims illustrate the potential for conflict between EPA and other regulators. Under the consent decrees, EPA agreed to allow Volkswagen to make certain modifications to affected cars to prevent further environmental harm. *In re Volkswagen “Clean Diesel” Mktg., Sales Practices, & Prods. Liab. Litig.*, 310 F. Supp. 3d 1030, 1046 n.7 (N.D.Cal.2018). Ohio, however, would penalize Volkswagen for this EPA-approved conduct, on the grounds that “the modifications do not bring the vehicles into compliance with the originally certified emission standards.” *Id.* In any event, if the Tenth District’s decision is allowed to stand, it will not always be the case that federal, state, and local authorities agree on whether a particular change constitutes tampering. State and local regulators could seek to apply their own particular interpretations of “tampering” (or other regulatory burdens) to various types of in-use changes, resulting in significant regulatory uncertainty.

and enforcement could compound or complicate the consequences of any resolution reached with EPA (and thus make it difficult for EPA to achieve such resolutions at all).

In short, allowing state and local governments to regulate model-wide changes to in-use vehicles would create a hopelessly unmanageable patchwork of regulation. That is precisely the concern that the automobile manufacturing industry raised in its comments on the 1970 amendments to the CAA. There, the Automobile Manufacturers Association explained that “[t]he possibility of hundreds of different standards” was “wholly unrealistic from an economic standpoint” and would give rise to “a myriad of problems.” Letter, Automobile Mfrs. Ass’n to Elliot L. Richardson, Aug. 27, 1970, *reprinted in* 1 CAA Legislative History at 724-25. Fifty years later, as the complexity of emission regulations and emission control technology has increased exponentially, this concern carries even greater weight. Allowing state and local regulators to weigh in on which design changes and software updates to in-use vehicles constitute tampering would destabilize EPA’s regulatory scheme and inject unwarranted confusion into the process.

CONCLUSION

Amici respectfully submit that this Court should reverse the judgment of the Tenth District.

Respectfully submitted,

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