# UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF MICHIGAN

LEN GAMBOA, JEFF RETMIER, NIKIAH NUDELL, DAVID BATES, PETE PETERSEN, and WILLIAM SPARKS, individually and on behalf of all others similarly situated, No. 18-cv-10106

Plaintiffs,

**JURY TRIAL DEMANDED** 

v.

FORD MOTOR COMPANY, a
Delaware corporation; ROBERT
BOSCH GMBH, a corporation organized
under the laws of Germany; and
ROBERT BOSCH LLC, a Delaware
Limited Liability Company,

Defendants.

**CLASS ACTION COMPLAINT** 

# **TABLE OF CONTENTS**

			<u>Page</u>
I.	INTI	RODU	CTION1
II.	JUR	ISDIC	TION11
III.	VEN	IUE	
IV.	PAR	TIES	
	A.	Plaiı	ntiffs
		1.	Arizona Plaintiff
			a. Len Gamboa13
		2.	California Plaintiffs
			a. Jeff Retmier
			b. Nikiah Nudell17
		3.	Illinois Plaintiff
			a. David Bates
		4.	Pennsylvania Plaintiff21
			a. Pete Petersen
		5.	Texas Plaintiff23
			a. William Sparks23
	B.	Defe	endants25
		1.	Ford Motor Company25
		2.	The Bosch defendants
V.	FACTUAL ALLEGATIONS		
	A.	The environmental challenges posed by diesel engines and the U.S. regulatory response thereto	
	B. Bo		the F-250 and F-350 share a common engine40
		1.	Injection timing and in-cylinder controls41
		2.	EGR – Exhaust Gas Recirculation42

	3.	DOC	C – Diesel Oxidation Catalyst	42
	4.	DEF	Injector	43
	5.	SCR	- Selective Catalytic Reduction	43
	6.	DPF	– Diesel Particulate Filter	44
C.	Emis	ssion to	est cycles and emission standards	47
D.	Ford Promoted the Super Duty vehicles as the "cleanest Super Duty diesel ever" with "best-in-class fuel economy" and "best-in-class towing" because Ford knew the environment, fuel economy, and towing capacity are material to a reasonable consumer.			
	1.	Ford	l advertising promises "a remarkable reduction" in sions and fuel economy.	51
E.	The deception			
	1.	The	diesel test setup	72
	2.	PEM	IS testing is reliable an accurate	76
	3.	Test	ing results indicate higher than expected emissions	84
	4.	Ford	F-250 testing	84
		a.	FTP-75 style driving	84
		b.	Steady highway testing	87
	5.	The vehic	test vehicle is representative of all Super Duty cles	108
F.	The Bosch EDC17		EDC17	109
G.	Bosch played a critical role in the defeat device scheme in many diesel vehicles in the United States, giving rise to a strong inference that Bosch played a key role in implementing the Ford emission strategy.			116
	1.	Volk defe	at device	116
	2.	Volk "aku	sswagen and Bosch conspire to conceal the illegal istikfunktion."	121
	3.	Volk Gerr Volk	rswagen and Bosch conspire in the United States and nany to elude U.S. regulators who regulated not just asswagen diesels but all diesels	121

		4.	Bosch keeps Volkswagen's secret safe and pushes "clean" diesel in the United States as a concept applicable to all diesel car manufacturers	122
		5.	Bosch also made the EDC17 found in FCA vehicles that pollute excessively.	126
		6.	Bosch GmbH also made the EDC17 found in polluting Mercedes diesels.	128
		7.	Bosch GmbH also made the EDC17 found in 700,000 polluting General Motors trucks.	128
	H.	The c	lamage from excessive NOx	130
		1.	Environmental harm	130
		2.	Economic harm	133
	I.	The I emiss allega adver	Ford scheme is just the latest in a worldwide diesel sions cheating scandal that adds plausibility to the ations here as virtually all diesel manufacturers are falsely tising their vehicles.	136
VI.	TOLI		OF THE STATUTE OF LIMITATIONS	
	A.	Disco	overy rule tolling	140
	B.	Frauc	lulent concealment tolling	141
	C.	Estop	ppel	141
VII.	CLAS	SS AL	LEGATIONS	142
VIII.	CLA	IMS		146
	A.	Clain	ns brought on behalf of the Nationwide RICO Class	146
COU	UNT 1 VIOLATIONS OF RACKETEER INFLUENCED AND CORRUPT ORGANIZATIONS ACT (RICO) VIOLATION OF 18 U.S.C. § 1962(C), (D)		146	
		1.	The members of the Super Duty Diesel Fraud Enterprise	
		2.	The predicate acts	156
	B.	State	law claims	
COU	NT 2 V (ARI	VIOLA	ATION OF THE ARIZONA CONSUMER FRAUD ACT A REV. STAT. § 44-1521 <i>ET SEQ</i> .)	
COU	COM	PETI	ATIONS OF THE CALIFORNIA UNFAIR ΓΙΟΝ LAW (CAL. BUS. & PROF. CODE § 17200 <i>ET</i>	166
	~ ,			

COUNT 4 VIOLATIONS OF THE CALIFORNIA FALSE ADVERTISING LAW (CAL. BUS. & PROF. CODE § 17500 ET SEQ.)	171
COUNT 5 BREACH OF CONTRACT (BASED ON CALIFORNIA LAW)	174
COUNT 6 FRAUDULENT CONCEALMENT (BASED ON CALIFORNIA LAW)	176
COUNT 7 VIOLATION OF THE ILLINOIS CONSUMER FRAUD AND DECEPTIVE BUSINESS PRACTICES ACT (815 ILCS 505/1, <i>ET SEQ.</i> AND 720 ILCS 295/1A)	183
COUNT 8 BREACH OF CONTRACT (BASED ON ILLINOIS LAW)	187
COUNT 9 FRAUDULENT CONCEALMENT (BASED ON ILLINOIS LAW)	189
COUNT 10 VIOLATION OF THE PENNSYLVANIA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION LAW (73 PA. CONS. STAT. § 201-1 <i>ET SEQ</i> .)	196
COUNT 11 VIOLATIONS OF THE TEXAS DECEPTIVE TRADE PRACTICES AND CONSUMER PROTECTION ACT (TEX. BUS. & COM. CODE § 17.4 ET SEQ.)	197
C. Claims brought on behalf of the other state classes	202
COUNT 12 VIOLATION OF THE ALABAMA DECEPTIVE TRADE PRACTICES ACT (ALA. CODE § 8-19-1 ET SEQ.)	202
COUNT 13 VIOLATION OF THE ALASKA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION ACT (ALASKA STAT. ANN. § 45.50.471 ET SEQ.)	203
COUNT 14 VIOLATION OF THE ARKANSAS DECEPTIVE TRADE PRACTICES ACT (ARK. CODE ANN. § 4-88-101 <i>ET SEQ.</i> )	204
COUNT 15 VIOLATION OF THE COLORADO CONSUMER PROTECTION ACT (COLO. REV. STAT. § 6-1-101 <i>ET SEQ.</i> )	206
COUNT 16 VIOLATION OF THE CONNECTICUT UNFAIR TRADE PRACTICES ACT (CONN. GEN. STAT. § 42-110A ET SEQ.)	207
COUNT 17 VIOLATION OF THE DELAWARE CONSUMER FRAUD ACT (DEL. CODE TIT. 6, § 2513 ET SEQ.)	208
COUNT 18 VIOLATION OF THE GEORGIA FAIR BUSINESS PRACTICES ACT (GA. CODE ANN. § 10-1-390 ET SEQ.)	210
COUNT 19 VIOLATION OF THE GEORGIA UNIFORM DECEPTIVE TRADE PRACTICES ACT (GA. CODE. ANN § 10-1-370 ET SEQ.)	211
COUNT 20 VIOLATION OF THE HAWAII ACT § 480-2(A) (HAW. REV. STAT. § 480 <i>ET SEQ.</i> )	212

COUNT 21 VIOLATION OF THE IDAHO CONSUMER PROTECTION ACT (IDAHO CODE ANN. § 48-601 ET SEQ.)	213
COUNT 22 VIOLATION OF THE INDIANA DECEPTIVE CONSUMER SALES ACT (IND. CODE § 24-5-0.5-3)	215
COUNT 23 VIOLATION OF THE IOWA PRIVATE RIGHT OF ACTION FOR CONSUMER FRAUDS ACT (IOWA CODE § 714H.1 <i>ET SEQ.</i> )	217
COUNT 24 VIOLATION OF THE KANSAS CONSUMER PROTECTION ACT (KAN. STAT. ANN. § 50-623 ET SEQ.)	218
COUNT 25 VIOLATIONS OF THE KENTUCKY CONSUMER PROTECTION ACT (KY. REV. STAT. § 367.110 <i>ET SEQ.</i> )	219
COUNT 26 VIOLATION OF THE LOUISIANA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION LAW (LA. REV. STAT. § 51:1401 <i>ET SEQ</i> .)	223
COUNT 27 FRAUDULENT CONCEALMENT (BASED ON LOUISIANA LAW)	225
COUNT 28 VIOLATION OF THE MAINE UNFAIR TRADE PRACTICES ACT (ME. REV. STAT. ANN. TIT. 5, § 205-A <i>ET SEQ</i> .)	226
COUNT 29 VIOLATION OF THE MARYLAND CONSUMER PROTECTION ACT (MD. CODE ANN., COM. LAW § 13-101 <i>ET SEQ</i> .)	227
COUNT 30 VIOLATION OF THE MASSACHUSETTS GENERAL LAW CHAPTER 93(A) (MASS. GEN. LAWS CH. 93A, § 1 <i>ET SEQ</i> .)	228
COUNT 31 VIOLATION OF THE MICHIGAN CONSUMER PROTECTION ACT (MICH. COMP. LAWS § 445.903 <i>ET SEQ</i> .)	228
COUNT 32 VIOLATION OF THE MINNESOTA PREVENTION OF CONSUMER FRAUD ACT (MINN. STAT. § 325F.68 <i>ET SEQ.</i> )	230
COUNT 33 VIOLATION OF THE MINNESOTA DECEPTIVE TRADE PRACTICES ACT (MINN. STAT. § 325D.43-48 <i>ET SEQ</i> .)	231
COUNT 34 VIOLATION OF THE MISSISSIPPI CONSUMER PROTECTION ACT (MISS. CODE. ANN. § 75-24-1 <i>ET SEQ.</i> )	232
COUNT 35 VIOLATION OF THE MONTANA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION ACT OF 1973 (MONT. CODE ANN. § 30-14-101 <i>ET SEQ</i> .)	233
COUNT 36 VIOLATION OF THE NEBRASKA CONSUMER PROTECTION ACT (NEB. REV. STAT. § 59-1601 <i>ET SEQ</i> .)	234

COUNT 37 VIOLATION OF THE NEVADA DECEPTIVE TRADE PRACTICES ACT (NEV. REV. STAT. § 598.0903 <i>ET SEQ.</i> )	235
COUNT 38 VIOLATION OF THE NEW HAMPSHIRE CONSUMER PROTECTION ACT (N.H. REV. STAT. ANN. § 358-A:1 <i>ET SEQ</i> .)	237
COUNT 39 VIOLATION OF THE NEW JERSEY CONSUMER FRAUD ACT (N.J. STAT. ANN. § 56:8-1 <i>ET SEQ.</i> )	238
COUNT 40 FRAUD BY CONCEALMENT (BASED ON NEW JERSEY LAW)	239
COUNT 41 VIOLATION OF THE NEW MEXICO UNFAIR TRADE PRACTICES ACT (N.M. STAT. ANN. § 57-12-1 <i>ET SEQ</i> .)	242
COUNT 42 VIOLATION OF THE NEW YORK GENERAL BUSINESS LAW (N.Y. GEN. BUS. LAW §§ 349–350)	243
COUNT 43 VIOLATION OF THE NORTH CAROLINA UNFAIR AND DECEPTIVE ACTS AND PRACTICES ACT (N.C. GEN. STAT. § 75-1.1 <i>ET SEQ</i> .)	244
COUNT 44 VIOLATION OF THE NORTH DAKOTA CONSUMER FRAUD ACT (N.D. CENT. CODE § 51-15-02)	245
COUNT 45 VIOLATION OF THE OHIO CONSUMER SALES PRACTICES ACT (OHIO REV. CODE ANN. § 1345.01 <i>ET SEQ</i> .)	246
COUNT 46 VIOLATION OF THE OKLAHOMA CONSUMER PROTECTION ACT (OKLA. STAT. TIT. 15, § 751 <i>ET SEQ</i> .)	249
COUNT 47 VIOLATION OF THE OREGON UNLAWFUL TRADE PRACTICES ACT (OR. REV. STAT. § 646.605 <i>ET SEQ.</i> )	251
COUNT 48 VIOLATION OF THE RHODE ISLAND UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION ACT (R.I. GEN. LAWS § 6-13.1 <i>ET SEQ.</i> )	252
COUNT 49 VIOLATION OF THE SOUTH CAROLINA UNFAIR TRADE PRACTICES ACT (S.C. CODE ANN. § 39-5-10 <i>ET SEQ</i> .)	E 253
COUNT 50 VIOLATION OF THE SOUTH DAKOTA DECEPTIVE TRADE PRACTICES AND CONSUMER PROTECTION LAW (S.D. CODIFIED LAWS § 37-24-6)	254
COUNT 51 VIOLATION OF THE UTAH CONSUMER SALE PRACTICES ACT (UTAH CODE ANN. § 13-11-1 <i>ET SEQ</i> .)	255
COUNT 52 VIOLATION OF THE VERMONT CONSUMER FRAUD ACT (VT. STAT. ANN. TIT. 9, § 2451 <i>ET SEQ</i> .)	256
COUNT 53 VIOLATION OF THE VIRGINIA CONSUMER PROTECTION ACT (VA. CODE ANN. § 59.1-196 ET SEQ.)	257

# 2:18-cv-10106-DPH-EAS Doc # 1 Filed 01/10/18 Pg 8 of 273 Pg ID 8

COUNT 54 VIOLATION OF THE WASHINGTON CONSUMER	
PROTECTION ACT (WASH. REV. CODE ANN. § 19.86.010 ET	• = 0
SEQ.)	258
COUNT 55 VIOLATION OF THE WEST VIRGINIA CONSUMER	
CREDIT AND PROTECTION ACT (W. VA. CODE § 46A-1-101	
ET SEQ.)	259
COUNT 56 VIOLATION OF THE WISCONSIN DECEPTIVE TRADE	261
PRACTICES ACT (WIS. STAT. § 110.18)	261
COUNT 57 VIOLATION OF THE WYOMING CONSUMER	
PROTECTION ACT (WYO. STAT. § 40-12-105 ET SEQ.)	262
~ /	
REQUEST FOR RELIEF	263
DEMAND FOR HIDY TRIAL	264
DEMAND FOR JURY TRIAL	264

Plaintiffs, individually and on behalf of all others similarly situated (the "Class"), allege the following based upon the investigation of counsel, the review of scientific papers, and the proprietary investigation of experts.

# I. INTRODUCTION

- 1. This is what Ford Motor Company promised when selling its popular Ford F-250 and F-350 "Super Duty" vehicles: that its 6.7-liter Power Stroke diesel was the "Cleanest Super Diesel Ever"; that it used "proven technology and innovative Ford strategies to meet the latest federal emissions standards"; and that it reduced nitrogen oxide (NOx) by 80% over previous models. Ford also claimed that these "Super Duty" vehicles were "best-in-class" with respect to fuel economy and that they were the "most tested Power Stroke diesel engine ever."
- 2. As explained in detail below, this is not what Ford delivered in the top selling 2011–2017 F-250 and F-350 Super Duty diesels on the road. In contrast to Ford's promises, scientifically valid emissions testing has revealed that the Super Duty vehicles emit levels of NOx many times higher than (i) their gasoline counterparts; (ii) what a reasonable consumer would expect; (iii) what Ford had advertised; (iv) the Environmental Protection Agency's maximum standards; and (v) the levels set for the vehicles to obtain a certificate of compliance, which allows them to be sold in the United States. Further, the vehicles' promised power, fuel economy and efficiency, and towing capacity is obtained only by turning off

or turning down emission controls when the software in these vehicles senses that they are not in an emissions testing environment.

- 3. In the last two years, there have been major scandals involving diesel vehicles made by Volkswagen, Audi, Porsche, Mercedes, and Fiat Chrysler Automobiles (FCA). Volkswagen pled guilty to criminal violations of the Clean Air Act, Mercedes is under investigation by the Department of Justice, and FCA has been sued by the EPA for violating the Clean Air Act for improper emissions in tens of thousands of 2014–2016 Dodge Ram 1500 and Jeep Grand Cherokee EcoDiesels. Additionally, General Motors is the subject of a lawsuit concerning the emissions of its Silverado and Sierra trucks. The diesel vehicles made by these manufacturers evade emissions standards with the help of certain software that turns off or turns down emission controls when the vehicles sense that they are not in a test environment.
- 4. Testing using accepted testing equipment and protocols conducted by engineering experts in emissions testing indicates that, unfortunately, Ford is no different. Ford's top selling Super Duty vehicles often emit far more pollution on the road than in the emissions-certification testing environment. These vehicles exceed federal and state emission standards and employ "defeat devices" to turn down the emission controls when each vehicle senses that it is not in the certification test cycle. A defeat device means an auxiliary emission control device

that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use. In modern vehicles with electronic engine controls, defeat devices are almost always activated by illegal software in the vehicle's engine control module (ECM)—the computer that controls the operation of the engine and emission control devices.

Increased sales, and thus increased profits, drove Ford to use at least a 5. defeat device in its Super Duty diesel engines. By reversing the traditional order of the exhaust treatment components and putting the selective catalytic reduction (SCR) in front of the diesel particulate filter (DPF), Ford could obtain and market higher power and fuel efficiency from its engines while still passing the cold-start emissions certification tests. This made Ford's trucks more appealing and competitive in the marketplace, driving up sales and profits. But the reordering would have also drastically increased the need to employ Active Regeneration (i.e., burning off collected soot at a high temperature) and other power- and efficiencysapping exhaust treatment measures, reversing the very advantage gained. Ford's solution, with the participation of Defendants Robert Bosch GmbH and Robert Bosch LLC, was to install defeat devices to purposefully reduce in-cylinder NOx controls, EGR effectiveness, and SCR dosing, thus increasing NOx emissions and decreasing the need for Active Regeneration. The defeat devices allowed Ford to

have its cake and it eat too. It could gain the advantage of hot exhaust going into the SCR system, needed to pass cold-start tests, while avoiding the fuel- and power-robbing Active Regeneration procedure that the DPF requires when the SCR treatment comes first.

- 6. Diesel engines pose a difficult challenge to the environment because they have an inherent trade-off between power, fuel efficiency, and emissions. Compared to gasoline engines, diesel engines generally produce greater torque, low-end power, better drivability, and much higher fuel efficiency. But these benefits come at the cost of much dirtier and more harmful emissions.
- 7. One byproduct of diesel combustion is NOx, which generally describes two primary compounds comprised of nitrogen and oxygen atoms, nitric oxide, and nitrogen dioxide. These compounds are formed in the cylinder of the engine during the high temperature combustion process. NOx pollution contributes to nitrogen dioxide, particulate matter in the air, and reacts with sunlight in the atmosphere to form ozone. Exposure to these pollutants has been linked with serious health dangers, including serious respiratory illnesses and premature death due to respiratory-related or cardiovascular-related effects. The U.S. government, through the EPA, has passed and enforced laws designed to protect U.S. citizens from these pollutants and certain chemicals and agents known to cause disease in humans. NO2, which is the pollutant that NOx is converted to in the atmosphere, is

one of the seven criteria pollutants that the Clean Air Act establishes as "wide-spread pollutants that were considered harmful to the public and environment."

The National Ambient Air Quality Standards, which form the backbone of the clean air regulations designed to protect human health and the environment from criteria pollutants, regulate these criteria pollutants. Regulation of NOx from diesel engines is one way that the EPA controls ambient concentrations of this harmful pollutant.

- 8. Automobile manufacturers must abide by these laws and must adhere to EPA rules and regulations. The state claims in this case are not based on these laws but on deception aimed at consumers.
- 9. The Energy Independence and Security Act (EISA) of 2007 mandated a 40% increase in fuel economy by 2020. Tougher fuel economy standards were set to start for model year 2011 vehicles. Automobile manufacturers began planning to meet these standards. Almost all of the major automobile manufacturers rushed to develop "clean diesel" vehicles and promoted new diesel vehicles as environmentally friendly and clean, and they marketed the diesel vehicles as having better fuel economy than their gasoline counterparts.

  Volkswagen, Mercedes, Audi, General Motors, FCA, and other manufacturers began selling diesel cars and trucks as more powerful than their gasoline counterparts, but also as an environmentally friendly alternative to gasoline

vehicles. And the marketing worked, as over two million diesel vehicles were purchased between 2007 and 2016 in the United States and over ten million in Europe, where new standards were also implemented. Ford's F-Series trucks are the number one selling truck in the United States and Ford's profits on truck sales are material to Ford's profits.

- September 18, 2015, when the EPA issued a Notice of Violation of the Clean Air Act (the "First NOV") to Volkswagen Group of America, Audi AG, and Volkswagen America for installing illegal "defeat devices" in 2009–2015 Volkswagen and Audi diesel vehicles equipped with 2.0-liter diesel engines. A defeat device, as defined by the EPA, is any apparatus that unduly reduces the effectiveness of emission control systems under conditions a vehicle may reasonably be expected to experience. The EPA found that the Volkswagen/Audi defeat device allowed the vehicles to pass emissions testing, while in the real world these vehicles polluted far in excess of emissions standards. The California Air Resources Board also announced that it had initiated an enforcement investigation of Volkswagen pertaining to the vehicles at issue in the First NOV.
- 11. On September 22, 2015, Volkswagen announced that 11 million diesel vehicles worldwide were installed with the same defeat device software that

had evaded emissions testing by U.S. regulators. Volkswagen pled guilty to criminal charges and settled civil class actions for over ten billion dollars.<sup>1</sup>

Volkswagen wasn't alone—soon, government agencies began to 12. reveal that many manufacturers, both in the United States and in Europe, had produced dozens of models that were exceeding emissions standards. On December 2, 2016, Plaintiffs' counsel, based on the same type of expert testing and investigation conducted in this case, filed a class action alleging that FCA's Dodge Ram and Jeep Grand Cherokee EcoDiesels were exceeding emissions standards and producing emissions beyond that a reasonable consumer would expect to be produced by "Eco" vehicles. On January 12, 2017, essentially confirming the work of Plaintiffs' counsel, the EPA issued a Notice of Violation to FCA because it had cheated on its emissions certificates with respect to its Dodge Ram and Jeep Grand Cherokee EcoDiesel vehicles. And on May 23, 2017, the United States filed a civil suit in the Eastern District of Michigan alleging violations of the Clean Air Act (E.D. Mich. No. 17-cv-11633). Many of the defeat devices listed in the Notice of Violation were identified by Plaintiffs' counsel ahead of the notice. In Europe, watchdog groups, NGOs, and government agencies have cited virtually every manufacturer, including Ford, for violating the lower European standards.

<sup>&</sup>lt;sup>1</sup> See Exhibit 1, Nathan Bomey, Volkswagen Emission Scandal Widens: 11 Million Cars Polluting, USA Today (Sept. 22, 2015), <a href="http://www.usatoday.com/story/money/cars/2015/09/22/volkswagen-emissions-scandal/72605874/">http://www.usatoday.com/story/money/cars/2015/09/22/volkswagen-emissions-scandal/72605874/</a>.

- 13. To appeal to environmentally conscious consumers, compete with rival and top selling vehicles by General Motors and FCA, and comply with new emissions regulations that became effective in 2010, Ford markets its Super Duty vehicles as having low emissions, "clean" diesel technology, high fuel economy, and powerful torque and towing capacity. Ford charges a premium of approximately \$8,400 for diesel-equipped vehicles over comparable gasoline Super Duty trucks.
- 14. Ford's representations are deceptive and false, and Ford sold these vehicles while omitting information that would be material to a reasonable consumer, namely that Ford has programmed its Super Duty vehicles to significantly reduce the effectiveness of the NOx reduction systems during common real-world driving conditions.
- 15. Plaintiffs' on-road testing has confirmed that Ford's Super Duty vehicles produce NOx emissions in an amount demonstrating that they are not the "cleanest Super Duty diesel" vehicles that meet emission standards; rather, Ford has programmed the vehicles so that in a wide range of common driving conditions, the emissions systems are powered down, producing NOx far in excess of emissions standards. A reasonable consumer would not expect their Super Duty vehicle to spew unmitigated NOx in this fashion while driving in the city or on the highway, nor would a reasonable consumer expect that fuel economy was achieved

in part by turning off or derating the emission systems; nor would a reasonable consumer expect that if the emissions were as-promised, the advertised fuel economy and performance could not be achieved.

- 16. In stop-and-go conditions, including those identical to the FTP-75 certification cycle, emissions are routinely as high as five times the standard. In certain common driving conditions, such as modest uphill road grades, or with the use of a trailer that adds weight, emissions exceed the standard by 30 to 50 times. Ford advertised these vehicles as having "best-in-class towing capabilities" and expected Super Duty trucks to pull significant loads. Ford failed to disclose that "best-in-class towing" came with a byproduct of high NOx emissions, sometimes exceeding legal standards by 30 to 50 times. In stop-and-go driving, testing reveals that the vehicles operate 69% of the time above the emissions standard, 45% of the time at twice the standard, and 9% of the time at five times the standard. These vehicles should more properly have been called "Super Dirty."
- 17. Plaintiffs allege that the following Ford Super Duty models are affected by the unlawful, unfair, deceptive, and otherwise defective emission controls utilized by Ford: model year 2011–2017 F-250 and F-350 Super Duty diesel trucks (the "Polluting Vehicles").
- 18. In addition, Ford markets the Polluting Vehicles as "fuel efficient" and "best-in-class" in fuel economy. Without manipulating its software to turn off

or turn down the emission controls in common road conditions, Ford could not achieve the fuel economy and range it promises.

- 19. Ford did not previously disclose to Plaintiffs or Class members that in real-world driving conditions, the Polluting Vehicles can only achieve high fuel economy, power, and durability by reducing emission controls in order to spew NOx into the air.
- 20. Ford never disclosed to consumers that the Polluting Vehicles may be "clean" diesels in certain circumstances but are "dirty" diesels under common driving conditions. Ford never disclosed to consumers that it programs its emissions systems to work only under certain conditions. Ford never disclosed that it prioritizes engine power and profits over public health and the environment. Ford never disclosed that the Polluting Vehicles' emissions materially exceed the emissions from gasoline-powered vehicles, that the emissions exceed what a reasonable consumer would expect from a "low emissions" vehicle, and that the emissions materially exceed applicable emissions limits in real-world driving conditions.
- 21. Ford did not act alone. At the heart of the diesel scandal in the United States and Europe are Robert Bosch GmbH ("Bosch GmbH") and Robert Bosch LLC ("Bosch LLC") (sometimes referred together as "Bosch"). Bosch GmbH and Bosch LLC were active and knowing participants in the scheme to evade U.S.

emissions requirements. Bosch GmbH and Bosch LLC developed, manufactured, and tested the electronic diesel control (EDC) that allowed Ford to implement the defeat device. The Bosch EDC17 is a good enabler for manufacturers to employ "defeat devices" as it enables the software to detect conditions when emission controls can be manipulated—i.e., conditions outside of the emissions test cycle. Almost all of the vehicles found or alleged to have been manipulating emissions in the United States (including vehicles by Mercedes, FCA, Volkswagen, Audi, Porsche, and General Motors) use a Bosch EDC17 device.

22. Plaintiffs bring this action individually and on behalf of all other current and former owners or lessees of the Polluting Vehicles. Plaintiffs seek damages, injunctive relief, and equitable relief for Defendants' misconduct related to the design, manufacture, marketing, sale, and lease of the Polluting Vehicles, as alleged in this Complaint.

#### II. JURISDICTION

23. This Court has subject matter jurisdiction over this action under 28 U.S.C. § 1331 because Plaintiffs' claims arise under the RICO Act, 18 U.S.C. § 1962. The Court also has diversity jurisdiction because Plaintiffs and Defendants reside in different states. The Court has supplemental jurisdiction over Plaintiffs' state law claims under 28 U.S.C. § 1367.

- 24. This Court also has original jurisdiction over this lawsuit pursuant to 28 U.S.C. § 1332(a)(1), as modified by the Class Action Fairness Act of 2005, because Plaintiffs and Defendants are citizens of different states; there are more than 100 members of the Class (as defined herein); the aggregate amount in controversy exceeds \$5 million, exclusive of attorneys' fees, interest, and costs; and Class members reside across the United States. The citizenship of each party is described further below in the "Parties" section.
- 25. This Court has personal jurisdiction over each Defendant pursuant to 18 U.S.C. § 1965(b) & (d). This Court has personal jurisdiction over Defendants because they have minimum contacts with the United States, this judicial district, and this State, and they intentionally availed themselves of the laws of the United States and this state by conducting a substantial amount of business throughout the state, including the design, manufacture, distribution, testing, sale, lease, and/or warranty of Ford vehicles in this State and District. At least in part because of Defendants' misconduct as alleged in this lawsuit, the Polluting Vehicles ended up on this state's roads and in dozens of franchise dealerships.

#### III. VENUE

26. Venue is proper in this Court under 28 U.S.C. § 1391 because

(i) Defendants conduct substantial business in this District and have intentionally availed themselves of the laws and markets of the United States and this District;

and/or (ii) many of the acts and transactions giving rise to this action occurred in this District, including, *inter alia*, Ford's promotion, marketing, distribution, and sale of the Polluting Vehicles to Plaintiffs in this District. Defendant Ford sells a substantial number of automobiles in this District, has dealerships located throughout this District, and the misconduct occurred in part in this District. Venue is also proper under 18 U.S.C. § 1965(a) because Defendants are subject to personal jurisdiction in this District, as alleged in the preceding paragraph, and Defendants have agents located in this District.

# IV. PARTIES

#### A. Plaintiffs

- 1. Arizona Plaintiff
  - a. Len Gamboa
- 27. Plaintiff Len Gamboa (for the purpose of this paragraph, "Plaintiff") is an individual residing in Phoenix, Arizona. On or around July 22, 2016, Plaintiff purchased a new 2016 Ford F-250 from Peoria Ford, an authorized Ford dealer in Peoria, Arizona. Plaintiff purchased and still owns this vehicle. Unknown to Plaintiff at the time the vehicle was purchased, it was equipped with an emissions system that turned off or limited its emissions reduction system during common driving conditions and emitted pollutants such as NOx at many multiples of emissions emitted from gasoline-powered vehicles, at many times the level a reasonable consumer would expect from a "Clean Diesel," and at many multiples

of that allowed by federal law. Ford's unfair, unlawful, and deceptive conduct in designing, manufacturing, marketing, selling, and leasing the vehicle without proper emission controls has caused Plaintiff out-of-pocket loss in the form of overpayment at the time of purchase of at least \$8,400. Ford knew about, or recklessly disregarded, the inadequate emission controls during normal driving conditions, but did not disclose such facts or their effects to Plaintiff, so Plaintiff purchased his vehicle on the reasonable but mistaken belief that his vehicle was a "clean diesel" and/or a "low emission diesel," complied with U.S. emissions standards, was properly EPA-certified, and would retain all of its promised fuel economy and performance throughout its useful life. Plaintiff selected and ultimately purchased his vehicle, in part, because of the diesel system, as represented through advertisements and representations made by Ford. Plaintiff recalls that before he purchased the vehicle, he reviewed advertisements on Ford's website and representations from Ford's authorized dealer touting the efficiency, fuel economy, and power and performance of the engine. Had Ford disclosed the manipulation of emissions or the fact that the vehicle actually emitted unlawfully and/or unexpectedly high levels of pollutants, Plaintiff would not have purchased the vehicle or would have paid less for it. Plaintiff and each Class member has suffered an ascertainable loss as a result of Ford's omissions and/or misrepresentations and Defendants' operation of a RICO enterprise associated with the Super Duty diesel engine system, including but not limited to a high premium for the Super Duty diesel engine compared to what they would have paid for a similar vehicle with a gasoline-powered engine, out-of-pocket losses by overpaying for the vehicles at the time of purchase, and future attempted repairs, future additional fuel costs, and decreased performance of the vehicles once a repair to the emissions system is made. Neither Ford nor any of its agents, dealers, or other representatives informed Plaintiff or Class members of the existence of the unlawfully high emissions and/or defective nature of the Super Duty diesel engine system of the Polluting Vehicles prior to purchase.

# 2. California Plaintiffs

# a. Jeff Retmier

28. Plaintiff Jeff Retmier (for the purpose of this paragraph, "Plaintiff") is an individual residing in Hemet, California. On or around August 1, 2014, Plaintiff purchased a new 2014 Ford F-250 Super Duty from Gosch Ford, an authorized Ford dealer in Hemet, California. Plaintiff purchased and still owns this vehicle. Mr. Retmier uses his Ford F-250 to pull a 35' fifth-wheel trailer and also uses it to tow a 22' ski boat. Unknown to Plaintiff at the time the vehicle was purchased, it was equipped with an emissions system that turned off or limited its emissions reduction system during common driving conditions and emitted pollutants such as NOx at many multiples of emissions emitted from gasoline-powered vehicles, at

many times the level a reasonable consumer would expect from a "Clean Diesel," and at many multiples of that allowed by federal law. Ford's unfair, unlawful, and deceptive conduct in designing, manufacturing, marketing, selling, and leasing the vehicle without proper emission controls has caused Plaintiff out-of-pocket loss in the form of overpayment at the time of purchase of at least \$8,400. Ford knew about, or recklessly disregarded, the inadequate emission controls during normal driving conditions, but did not disclose such facts or their effects to Plaintiff, so Plaintiff purchased his vehicle on the reasonable but mistaken belief that his vehicle was a "clean diesel" and/or a "low emission diesel," complied with U.S. emissions standards, was properly EPA-certified, and would retain all of its promised fuel economy and performance throughout its useful life. Plaintiff selected and ultimately purchased his vehicle, in part, because of the diesel system, as represented through advertisements and representations made by Ford. Plaintiff recalls that before he purchased the vehicle, he reviewed advertisements on Ford's website and representations from Ford's authorized dealer touting the efficiency, fuel economy, and power and performance of the engine. Had Ford disclosed this design or the fact that the vehicle actually emitted unlawfully high levels of pollutants, Plaintiff would not have purchased the vehicle or would have paid less for it. Plaintiff and each Class member has suffered an ascertainable loss as a result of Ford's omissions and/or misrepresentations and Defendants' operation of a

RICO enterprise associated with the Super Duty diesel engine system, including but not limited to a high premium for the Super Duty diesel engine compared to what they would have paid for a truck of similar size with a gasoline-powered engine, out-of-pocket losses by overpaying for the vehicles at the time of purchase, future additional fuel costs, and decreased performance of the vehicles. Neither Ford nor any of its agents, dealers, or other representatives informed Plaintiff or Class members of the existence of the unlawfully and unexpectedly high emissions and/or defective nature of the Super Duty diesel engine system of the Polluting Vehicles prior to purchase.

#### b. Nikiah Nudell

29. Plaintiff Nikiah Nudell (for the purpose of this paragraph, "Plaintiff") is an individual residing in Fort Collins, Colorado. In or around July 2, 2016, Plaintiff purchased a new 2016 Ford F-350 Super Duty from North County Ford, an authorized Ford dealer in Vista, California. Plaintiff purchased and still owns this vehicle. He purchased his F-350 in order to haul a large fifth-wheel RV around North America. Mr. Nudell's F-350 currently has nearly 60,000 miles on it and over half of those miles were with the trailer attached. Unknown to Plaintiff at the time the vehicle was purchased, it was equipped with an emissions system that turned off or limited its emissions reduction system during normal driving conditions and emitted pollutants such as NOx at many multiples of emissions

emitted from gasoline-powered vehicles, at many times the level a reasonable consumer would expect from a "Clean Diesel," and at many multiples of that allowed by federal law. Ford's unfair, unlawful, and deceptive conduct in designing, manufacturing, marketing, selling, and leasing the vehicle without proper emission controls has caused Plaintiff out-of-pocket loss in the form of overpayment at the time of purchase, and diminished value of his vehicle. Ford knew about, or recklessly disregarded, the inadequate emission controls during normal driving conditions, but did not disclose such facts or their effects to Plaintiff, so Plaintiff purchased his vehicle on the reasonable but mistaken belief that his vehicle was a "clean diesel" and/or a "low emission diesel," complied with U.S. emissions standards, was properly EPA-certified, and would retain all of its promised fuel economy and performance throughout its useful life. Plaintiff selected and ultimately purchased his vehicle, in part, because of the diesel system, as represented through advertisements and representations made by Ford. Plaintiff recalls that before he purchased the vehicle, he reviewed advertisements on Ford's website and representations from Ford's authorized dealer touting the efficiency, fuel economy, and power and performance of the engine. Had Ford disclosed this design or the fact that the vehicle actually emitted unlawfully high levels of pollutants, Plaintiff would not have purchased the vehicle or would have paid less for it. Plaintiff and each Class member has suffered an ascertainable loss as a result of Ford's omissions and/or misrepresentations and Defendants' operation of a RICO enterprise associated with the Super Duty diesel engine system, including but not limited to a high premium for the Super Duty diesel engine compared to what they would have paid for a gasoline-powered engine, out-of-pocket losses by overpaying for the vehicles at the time of purchase, and future attempted repairs, future additional fuel costs, decreased performance of the vehicles, and diminished value of the vehicles. Neither Ford nor any of its agents, dealers, or other representatives informed Plaintiff or Class members of the existence of the unlawfully high emissions and/or defective nature of the Super Duty diesel engine system of the Polluting Vehicles prior to purchase.

# 3. Illinois Plaintiff

# a. David Bates

30. Plaintiff David Bates (for the purpose of this paragraph, "Plaintiff") is an individual residing in Oak Creek, Wisconsin. On or around July 31, 2015, Plaintiff purchased a new 2015 F-350 Super Duty from Rub Ford, an authorized Ford dealer in Gardner, Illinois. Plaintiff purchased and still owns this vehicle. He uses his F-350 Super Duty with a 28' custom enclosed trailer on it. Unknown to Plaintiff at the time the vehicle was purchased, it was equipped with an emissions system that turned off or limited its emissions reduction system during common driving conditions and emitted pollutants such as NOx at many multiples of

emissions emitted from gasoline-powered vehicles, at many times the level a reasonable consumer would expect from a "Clean Diesel," and at many multiples of that allowed by federal law. Ford's unfair, unlawful, and deceptive conduct in designing, manufacturing, marketing, selling, and leasing the vehicle without proper emission controls has caused Plaintiff out-of-pocket loss in the form of overpayment at the time of purchase of at least \$8,400. Ford knew about, or recklessly disregarded, the inadequate emission controls during normal driving conditions, but did not disclose such facts or their effects to Plaintiff, so Plaintiff purchased his vehicle on the reasonable but mistaken belief that his vehicle was a "clean diesel" and/or a "low emission diesel," complied with U.S. emissions standards, was properly EPA-certified, and would retain all of its promised fuel economy and performance throughout its useful life. Plaintiff selected and ultimately purchased his vehicle, in part, because of the diesel system, as represented through advertisements and representations made by Ford. Plaintiff recalls that before he purchased the vehicle, he reviewed advertisements on Ford's website and representations from Ford's authorized dealer touting the efficiency, fuel economy, and power and performance of the engine. Had Ford disclosed this design or the fact that the vehicle actually emitted unlawfully high levels of pollutants, Plaintiff would not have purchased the vehicle or would have paid less for it. Plaintiff and each Class member has suffered an ascertainable loss as a result of Ford's omissions and/or misrepresentations and Defendants' operation of a RICO enterprise associated with the Super Duty diesel engine system, including but not limited to a high premium for the Super Duty diesel engine compared to what they would have paid for a gasoline-powered engine, out-of-pocket losses by overpaying for the vehicles at the time of purchase, and future attempted repairs, future additional fuel costs, and decreased performance of the vehicles when their emissions systems are repaired. Neither Ford nor any of its agents, dealers, or other representatives informed Plaintiff or Class members of the existence of the unlawfully high emissions and/or defective nature of the Super Duty diesel engine system of the Polluting Vehicles prior to purchase.

# 4. Pennsylvania Plaintiff

#### a. Pete Petersen

31. Plaintiff Pete Petersen (for the purpose of this paragraph, "Plaintiff") is an individual residing in Boyertown, Pennsylvania. In or around July 30, 2014, Plaintiff purchased a new 2015 Ford F-350 Super Duty from John Kennedy Ford Conshohocken, an authorized Ford dealer in Conshohocken, Pennsylvania.

Plaintiff purchased and still owns this vehicle. He occasionally uses his F-350 Super Duty to pull a utility trailer. Unknown to Plaintiff at the time the vehicle was purchased, it was equipped with an emissions system that turned off or limited its emissions reduction system during normal driving conditions and emitted

pollutants such as NOx at many multiples of emissions emitted from gasolinepowered vehicles, at many times the level a reasonable consumer would expect from a "Clean Diesel," and at many multiples of that allowed by federal law. Ford's unfair, unlawful, and deceptive conduct in designing, manufacturing, marketing, selling, and leasing the vehicle without proper emission controls has caused Plaintiff out-of-pocket loss in the form of overpayment at the time of purchase, and diminished value of his vehicle. Ford knew about, or recklessly disregarded, the inadequate emission controls during normal driving conditions, but did not disclose such facts or their effects to Plaintiff, so Plaintiff purchased his vehicle on the reasonable but mistaken belief that his vehicle was a "clean diesel" and/or a "low emission diesel," complied with U.S. emissions standards, was properly EPA-certified, and would retain all of its promised fuel economy and performance throughout its useful life. Plaintiff selected and ultimately purchased his vehicle, in part, because of the diesel system, as represented through advertisements and representations made by Ford. Plaintiff recalls that before he purchased the vehicle, he reviewed advertisements on Ford's website and representations from Ford's authorized dealer touting the efficiency, fuel economy, and power and performance of the engine. Had Ford disclosed this design or the fact that the vehicle actually emitted unlawfully high levels of pollutants, Plaintiff would not have purchased the vehicle or would have paid less for it. Plaintiff and

each Class member has suffered an ascertainable loss as a result of Ford's omissions and/or misrepresentations and Defendants' operation of a RICO enterprise associated with the Super Duty diesel engine system, including but not limited to a high premium for the Super Duty diesel engine compared to what they would have paid for a gasoline-powered engine, out-of-pocket losses by overpaying for the vehicles at the time of purchase, and future attempted repairs, future additional fuel costs, decreased performance of the vehicles, and diminished value of the vehicles. Neither Ford nor any of its agents, dealers, or other representatives informed Plaintiff or Class members of the existence of the unlawfully high emissions and/or defective nature of the Super Duty diesel engine system of the Polluting Vehicles prior to purchase.

#### 5. Texas Plaintiff

- a. William Sparks
- 32. Plaintiff William Sparks (for the purpose of this paragraph, "Plaintiff") is an individual residing in Bandera, Texas. In or around June 29, 2015, Plaintiff purchased a used 2012 Ford F-350 Super Duty from Jennings Anderson Ford, an authorized Ford dealer in Boerne, Texas. Plaintiff purchased and still owns this vehicle. Mr. Sparks uses his Ford F-350 for hauling. He has a 16' cargo trailer and a 30' gooseneck trailer for hauling large equipment and materials. Unknown to Plaintiff at the time the vehicle was purchased, it was equipped with

an emissions system that turned off or limited its emissions reduction system during normal driving conditions and emitted pollutants such as NOx at many multiples of emissions emitted from gasoline-powered vehicles, at many times the level a reasonable consumer would expect from a "Clean Diesel," and at many multiples of that allowed by federal law. Ford's unfair, unlawful, and deceptive conduct in designing, manufacturing, marketing, selling, and leasing the vehicle without proper emission controls has caused Plaintiff out-of-pocket loss in the form of overpayment at the time of purchase, and diminished value of his vehicle. Ford knew about, or recklessly disregarded, the inadequate emission controls during normal driving conditions, but did not disclose such facts or their effects to Plaintiff, so Plaintiff purchased his vehicle on the reasonable but mistaken belief that his vehicle was a "clean diesel" and/or a "low emission diesel," complied with U.S. emissions standards, was properly EPA-certified, and would retain all of its promised fuel economy and performance throughout its useful life. Plaintiff selected and ultimately purchased his vehicle, in part, because of the diesel system, as represented through advertisements and representations made by Ford. Plaintiff recalls that before he purchased the vehicle, he reviewed advertisements on Ford's website and representations from Ford's authorized dealer touting the efficiency, fuel economy, and power and performance of the engine. Had Ford disclosed this design or the fact that the vehicle actually emitted unlawfully high levels of

pollutants, Plaintiff would not have purchased the vehicle or would have paid less for it. Plaintiff and each Class member has suffered an ascertainable loss as a result of Ford's omissions and/or misrepresentations and Defendants' operation of a RICO enterprise associated with the Super Duty diesel engine system, including but not limited to a high premium for the Super Duty diesel engine compared to what they would have paid for a gasoline-powered engine, out-of-pocket losses by overpaying for the vehicles at the time of purchase, and future attempted repairs, future additional fuel costs, decreased performance of the vehicles, and diminished value of the vehicles. Neither Ford nor any of its agents, dealers, or other representatives informed Plaintiff or Class members of the existence of the unlawfully high emissions and/or defective nature of the Super Duty diesel engine system of the Polluting Vehicles prior to purchase.

#### **B.** Defendants

- 1. Ford Motor Company
- 33. Ford Motor Company is a corporation doing business in all 50 states and the District of Columbia, and is organized under the laws of the State of Delaware, with its principal place of business in Dearborn, Michigan.
- 34. At all times relevant to this action, Ford manufactured, sold, and warranted the Polluting Vehicles throughout the United States. Ford and/or its agents, divisions, or subsidiaries designed, manufactured, and installed the diesel

engine systems on the Polluting Vehicles. Ford also developed and disseminated the owner's manuals, supplements, and warranty booklets, advertisements, and other promotional materials relating to the Polluting Vehicles, and Ford provided these to its authorized dealers for the express purpose of having these dealers pass such materials to potential purchasers at the point of sale. Ford also created, designed, and disseminated information about the quality of the Polluting Vehicles to various agents of various publications for the express purpose of having that information reach potential consumers.

#### 2. The Bosch defendants

- 35. From at least 2005 until 2015, Robert Bosch GmbH, Robert Bosch LLC, and currently unnamed Bosch employees (together, "Bosch") were knowing and active participants in the creation, development, marketing, and sale of illegal defeat devices specifically designed to evade U.S. emissions requirements in vehicles sold solely in the United States and Europe. These vehicles include the Ford vehicles in this case and the Dodge Ram 1500 EcoDiesel and Jeep Grand Cherokee EcoDiesel, as well as models made by Volkswagen, Audi, Porsche, General Motors, and Mercedes.
- 36. The following is a list, excluding the Ford vehicles in this case, of all diesel models in the United States with Bosch-supplied software whose emissions exceed federal and California emission standards and whose emissions are beyond

what a reasonable consumer would expect from vehicles marketed as "clean" or "low emission":



37. The Bosch entities participated not just in the development of the defeat device, but also in the scheme to prevent U.S. regulators from uncovering the device's true functionality. Moreover, each Bosch entities' participation was not limited to engineering the defeat device (in a collaboration described as

unusually close). Rather, Bosch GmbH and Bosch LLC marketed "clean diesel" in the United States and communicated with U.S. regulators about the benefits of "clean diesel," another highly unusual activity for a mere supplier. These lobbying efforts, taken together with evidence of each Bosch entities' actual knowledge that its software could be operated as a defeat device and participation in concealing the true functionality of the device from U.S. regulators, can be interpreted only one way under U.S. law: each Bosch entity was a knowing and active participant in a massive, decade-long conspiracy with Ford, Volkswagen, Audi, Mercedes, General Motors, and others to defraud U.S. consumers, regulators, and diesel car purchasers or lessees. Bosch GmbH and Bosch LLC have enabled approximately two million vehicles to be on the road in the United States polluting at levels that exceed emissions standards and which use software that manipulate emission controls in a manner not expected by a reasonable consumer.

38. Robert Bosch GmbH is a German multinational engineering and electronics company headquartered in Gerlingen, Germany. Robert Bosch GmbH is the parent company of Robert Bosch LLC. Robert Bosch GmbH, directly and/or through its North American subsidiary Robert Bosch LLC, at all material times, designed, manufactured, and supplied elements of the defeat device to Ford for use in the Polluting Vehicles. Bosch GmbH is subject to the personal jurisdiction of this Court because it has availed itself of the laws of the United States through its

management and control over Bosch LLC and over the design, development, manufacture, distribution, testing, and sale of hundreds of thousands of the defeat devices installed in the Polluting Vehicles sold or leased in the United States.

Employees of Bosch GmbH and Bosch LLC have collaborated in the emissions scheme with Ford in this judicial district and have been present in this district.

- 39. Robert Bosch LLC is a Delaware limited liability company with its principal place of business located at 38000 Hills Tech Drive, Farmington Hills, Michigan. Robert Bosch LLC is a wholly owned subsidiary of Robert Bosch GmbH. Robert Bosch LLC, directly and/or in conjunction with its parent Robert Bosch GmbH, at all material times, designed, manufactured, and supplied elements of the defeat device to Ford for use in the Polluting Vehicles.
- 40. Both Bosch GmbH and Bosch LLC (collectively, "Bosch") operate under the umbrella of the Bosch Group, which encompasses some 340 subsidiaries and companies. The "Bosch Group" is divided into four business sectors: Mobility Solutions (formerly Automotive Technology), Industrial Technology, Consumer Goods, and Energy and Building Technology. The Mobility Solutions sector, which supplies parts to the automotive industry, and its Diesel Systems division, which develops, manufacturers and applies diesel systems, are particularly at issue here and include the relevant individuals at both Bosch GmbH and Bosch LLC. Bosch's sectors and divisions are grouped not by location, but by subject matter.

Mobility Solutions includes the individuals involved in the RICO enterprise and conspiracy at both Bosch GmbH and Bosch LLC. Some individuals worked at both Bosch LLC and Bosch GmbH during the course of the RICO conspiracy. The acts of individuals described in this Complaint have been associated with Bosch GmbH and Bosch LLC whenever possible. Regardless of whether an individual works for Bosch LLC in the United States or Bosch GmbH in Germany, the individuals often hold themselves out as working for "Bosch." This collective identity is captured by Bosch's mission statement: "We are Bosch," a unifying principle that links each entity and person within the Bosch Group.<sup>2</sup> Bosch documents and press releases often refer to the source of the document as "Bosch" without identifying any particular Bosch entity. Thus, the identity of which Bosch defendant was the author of such documents and press releases cannot be ascertained with certainty until Bosch GmbH and Bosch LLC respond to discovery requests in this matter.

41. Bosch holds itself out to the world as one entity: "the Bosch Group." The Diesel Systems division, which developed the EDC17, is described as part of the Bosch Group. In the case of the Mobility Solutions sector, which oversees the

<sup>&</sup>lt;sup>2</sup> Exhibit 2, Bosch 2014 Annual Report, available at <a href="http://www.bosch.com/en/com/bosch\_group/bosch\_figures/publications/archive/archive-cg12.php">http://www.bosch.com/en/com/bosch\_group/bosch\_figures/publications/archive/archive-cg12.php</a>.

Diesel Systems Group, the Bosch Group competes with other large automotive suppliers.<sup>3</sup>

- 42. The Bosch publication *Bosch in North America* represents that "Bosch supplies . . . clean-diesel fuel technology for cars and trucks." Throughout the document describing its North American operations, the company refers to itself as "Bosch" or "the Bosch Group."
- 43. The *Bosch in North America* document proclaims that Automotive Technology is "Bosch's largest business sector in North America." In this publication, Bosch never describes the actions of any separate Bosch legal entity, like Bosch LLC, when describing its business, but always holds itself out as "the Bosch Group."<sup>5</sup>
- 44. German authorities are now investigating Bosch GmbH and the role in the emissions scandal and are focusing on certain Bosch employees:<sup>6</sup>

<sup>&</sup>lt;sup>3</sup> See, e.g., Exhibit 3, Bosch's 2016 Annual Report, available at <a href="https://assets.bosch.com/media/global/bosch\_group/our\_figures/pdf/bosch-annual-report-2016.pdf">https://assets.bosch.com/media/global/bosch\_group/our\_figures/pdf/bosch-annual-report-2016.pdf</a>, at 23.

<sup>&</sup>lt;sup>4</sup> Exhibit 4, *Bosch in North America* (May 2007), available at <a href="http://www.bosch.us/content/language1/downloads/BINA07.pdf">http://www.bosch.us/content/language1/downloads/BINA07.pdf</a>, at 2.

<sup>&</sup>lt;sup>5</sup> *Id.* at 5.

<sup>&</sup>lt;sup>6</sup> Exhibit 5, *Three Bosch Managers Targeted as German Diesel Probe Expands*, Bloomberg (June 29, 2007), <a href="https://www.bloomberg.com/news/articles/2017-06-29/three-bosch-managers-targeted-as-german-diesel-probe-expands">https://www.bloomberg.com/news/articles/2017-06-29/three-bosch-managers-targeted-as-german-diesel-probe-expands</a>.

## Three Bosch Managers Targeted as German Diesel Probe Expands

A German probe into whether Robert Bosch GmbH helped Volkswagen AG cheat on emissions tests intensified as Stuttgart prosecutors said they were focusing on three managers at the car-parts maker.

While Stuttgart prosecutors didn't identify the employees, the step indicates that investigators may have found specific evidence in the probe. Previously, prosecutors have said they were looking into the role "unidentified" Bosch employees may have played in providing software that was used to cheat on emission tests.

"We have opened a probe against all three on suspicions they aided fraud in connection to possible manipulation in emissions treatments in VW cars," Jan Holzner, a spokesman for the agency, said in an emailed statement. "All of them are managers with the highest in middle management."

Bosch, which is also being investigated by the U.S. Department of Justice, has been caught up in the VW diesel scandal that emerged in 2015 over allegations its employees may have helped rig software that helped the carmaker to cheat emission tests. Earlier this year, Stuttgart prosecutors opened a similar probe into Bosch's role in connection with emission tests of Daimler cars.

A spokesman for Bosch said that while he can't comment on individual employees, the company 'takes the overall allegations in diesel cases seriously and has been cooperating fully from the beginning of the probes."

The Stuttgart probe is running parallel to the central criminal investigation in Braunschweig, closer to VW's headquarters. That investigation is targeting nearly 40 people on fraud allegations related to diesel-emission software, including former VW Chief Executive Officer Martin Winterkorn.

Prosecutors' interest extends to multiple units in the VW family -- including luxury brands Audi and Porsche. In addition, Stuttgart prosecutors are also reviewing a third case related to Bosch's cooperation with Fiat Chrysler Automobiles NV on software for diesel engines.

45. As reported by Bloomberg on September 16, 2017, U.S. prosecutors are examining Bosch's role in supplying its EDC17 to manufacturers other than Bosch:

U.S. prosecutors are investigating whether Germany's Robert Bosch GmbH, which provided software to Volkswagen AG, conspired with the automaker to engineer diesel cars that would cheat U.S. emissions testing, according to two people familiar with the matter.

Among the questions the Justice Department is asking in the criminal probe, one of them said, is whether automakers in addition to VW used Bosch software to skirt environmental standards. Bosch, which is also under US. Civil probe and German inquiry, is cooperating in investigations and can't comment on them, said spokesman Rene Ziegler.

The line of inquiry broadens what is already the costliest scandal in US. automaking history. Wolfsburg-based VW faces an industry-record \$16.5 billion, and counting, in criminal and civil litigation fines after admitting last year that its diesel cars were outfitted with a "defeat device" that lowered emissions to legal levels only when it detected the vehicle was being tested.

More than a half dozen big manufacturers sell dieselpowered vehicles in the U.S. The people familiar with the matter declined to say whether specific makers are under scrutiny.

46. Recently, researchers from Rohr-Universität in Bochum, Germany, and University of California-San Diego uncovered Bosch's role in connection with the manipulation of emission controls in certain Volkswagen and FCA vehicles. The researchers found no evidence that Volkswagen and FCA wrote the code that allowed the operation of defeat devices. All the code they analyzed was found in documents copyrighted by Robert Bosch GmbH. These researchers found that in

the "function sheets" copyrighted by Robert Bosch GmbH, the code to cheat the emissions test was labeled as modifying the "acoustic condition" of the engine, a label that helped the cheat fly under the radar. Given that Ford vehicles have a Bosch EDC17, as did the cheating Volkswagen, General Motors, Mercedes, and FCA vehicles, and given testing by Plaintiffs' experts described below that reveals defeat devices in Ford vehicles, it is plausible to allege that Bosch was a participant in the scheme to hide the true emissions of Ford's Super Duty vehicles, and supplied a similar "function sheet" to Ford to enable a similar emission deception.

#### V. FACTUAL ALLEGATIONS

- A. The environmental challenges posed by diesel engines and the U.S. regulatory response thereto
- 47. The U.S. government, through the EPA, has passed and enforced laws designed to protect United States citizens from pollution and, in particular, certain chemicals and agents known to cause disease in humans. Automobile manufacturers must abide by these laws and must adhere to EPA rules and regulations.
- 48. The Clean Air Act has strict emissions standards for vehicles, and it requires vehicle manufacturers to certify to the EPA that the vehicles sold in the United States meet applicable federal emissions standards to control air pollution. Every vehicle sold in the United States must be covered by an EPA-issued certificate of conformity.

- 49. There is a very good reason that these laws and regulations exist, particularly in regards to vehicles with diesel engines: in 2012, the World Health Organization declared diesel vehicle emissions to be carcinogenic and about as dangerous as asbestos.
- 50. Diesel engines pose a particularly difficult challenge to the environment because they have an inherent trade-off between power, fuel efficiency, and NOx emissions—the greater the power and fuel efficiency, the dirtier and more harmful the emissions.
- 51. Instead of using a spark plug to combust highly refined fuel with short hydrocarbon chains, as gasoline engines do, diesel engines compress a mist of liquid fuel and air to very high temperatures and pressures, which causes the diesel to spontaneously combust. This causes a more powerful compression of the pistons, which produces greater engine torque—i.e., more power.
- 52. The diesel engine is able to do this both because it operates at a higher compression ratio than a gasoline engine and because diesel fuel contains more energy than gasoline.
- 53. But this greater energy and fuel efficiency comes at a cost: diesel produces dirtier and more dangerous emissions. One byproduct of diesel combustion is a combination of nitric oxide and nitrogen dioxide, collectively

called NOx, compounds that form at high temperature in the cylinder during combustion.

- 54. NOx pollution contributes to nitrogen dioxide, particulate matter in the air, and reacts with sunlight in the atmosphere to form ozone. Exposure to these pollutants has been linked with serious health dangers, including asthma attacks and other respiratory illnesses serious enough to send people to the hospital. Ozone and particulate matter exposure have been associated with premature death due to respiratory-related or cardiovascular-related effects. Children, the elderly, and people with pre-existing respiratory illness are at acute risk of health effects from these pollutants. As a ground level pollutant, NO2, a common byproduct of NOx reduction systems using an oxidation catalyst, is highly toxic in comparison to nitric oxide (NO). If overall NOx levels are not sufficiently controlled, then concentrations of NO2 levels at ground level can be quite high, where they have adverse acute health effects.
- 55. Though more efficient, diesel engines come with their own set of challenges, as emissions from diesel engines can include higher levels of NOx and particulate matter (PM) or soot than emissions from gasoline engines due to the different ways the different fuels combust and the different ways the resulting emissions are treated following combustion. NOx emissions can be reduced through exhaust gas recirculation (EGR), whereby exhaust gases are routed back

into the intake of the engine and mixed with fresh incoming air. Exhaust gas recirculation lowers NOx by reducing the available oxygen, increasing the heat capacity of the exhaust gas mixture, and by reducing maximum combustion temperatures; however, EGR can also lead to an increase in PM as well. NOx and PM emissions can also be reduced through expensive exhaust gas after-treatment devices, primarily catalytic converters, which use catalyzed chemical reactions to transform the chemical composition of a vehicle's NOx and PM emissions into harmless inert gases, such as nitrogen gas (N2), water (H2O) and carbon dioxide (CO2).

56. Diesel engines thus operate according to this trade-off between price, NOx, and PM; and for the EPA to designate a diesel car as a "clean" vehicle, it must produce both low PM and low NOx. In 2000, the EPA announced stricter emissions standards requiring all diesel models starting in 2007 to produce drastically less NOx and PM than years prior. Before introducing affected vehicles into the U.S. stream of commerce (or causing the same), Ford was required to first apply for, and obtain, an EPA-administered certificate of conformity (COC) certifying that the vehicle comported with the emissions standards for pollutants enumerated in 40 C.F.R. §§ 86.1811-04, 86.1811-09, and 86.1811-10. The Clean Air Act expressly prohibits automakers, like Ford, from introducing a new vehicle into the stream of commerce without a valid COC from the EPA. Moreover,

vehicles must be accurately described in the COC application "in all material respects" to be deemed covered by a valid COC. California's emission standards are even more stringent than those of the EPA. The California Air Resources Board (CARB), the State of California's regulator, requires a similar application from automakers to obtain an Executive Order confirming compliance with California's emission regulations before allowing the vehicle onto California's roads.

- 57. The United States has two sets of parallel standards that affect fuel economy: (1) the corporate average fuel economy (CAFE) standards adopted by the National Highway Traffic Safety Administration (NHTSA), an agency within the Department of Transportation (DOT); and (2) greenhouse gas (GHG) emissions standards adopted by the EPA. The first CAFE standards were adopted in the 1970s in response to the Arab oil embargo. The first GHG emission standards became effective in model year 2012.
- 58. The Energy Policy Conservation Act of 1975 established the first CAFE standards for light-duty vehicles. Separate sets of standards were adopted for cars and for light trucks. For cars, the standards aimed to double the average fuel economy from 13.6 miles per gallon (mpg) in 1974 to 27.5 mpg by 1985. Vehicle manufacturers almost met this target, reaching 27.0 mpg by 1985. While

the CAFE program remained in force for a number of years, its fuel economy target for cars stagnated at 27.5 mpg through 2010.

- 59. In 2007, the stage was set for more progressive fuel economy and GHG emission regulations. The Energy Independence and Security Act (EISA) of 2007 mandated a 40% increase in fuel economy by 2020. Tougher fuel economy standards were to be set starting with model year 2011, until the standards achieve a combined average fuel economy of 35 mpg for model year 2020.
- 60. In April 2010, NHTSA and EPA finalized new, harmonized CAFE and GHG emission rules for model year 2012–2016 light-duty vehicles. These rules have been designed to result in an average CAFE fuel economy of 34.1 mpg (6.9 L/100 km) and CO2 emissions of 250 g/mile in model year 2016 vehicles.
- 61. These new model year 2011 rules presented manufacturing with obstacles and opportunity. The opportunity was capturing new markets by promoting technology that complied with new emission regulations. Manufacturers adopted several strategies, including the introduction of electric and diesel models.
- 62. The truck business is vitally important to Ford. Every day, Ford sells an average of 2,452 F-Series trucks.
- 63. Ford's Super Duty is designed to appeal to consumers who will want to use a "working truck"—i.e., to haul a load or a trailer. A diesel option is

attractive to consumers because diesel allegedly offers better fuel economy and towing capacity.

#### B. Both the F-250 and F-350 share a common engine

- 64. To meet the EPA emissions requirements applicable to model year 2011 vehicles, Ford introduced a new 6.7-liter Power Stroke diesel engine in both the F-250 and the F-350, and extended this design to 2017.
- 65. For the purposes of this Complaint, the following terms listed below are used to describe the diesel engine found in all F-250 and F-350 vehicles at issue in this case. These two models share the same engine test group and are considered by EPA and CARB to have identical engines.
- 66. The F-250 and F-350 engine is a Ford 6.7-liter Power Stroke diesel engine that includes the typical "clean diesel" NOx control strategies: in-cylinder controls and injection timing, exhaust gas recirculation (EGR), a diesel oxidation catalyst (DOC), a diesel particulate filter (DPF), and urea selective catalytic reduction (SCR). The engine and emission control system is controlled by the Bosch EDC17.
- 67. The critical emission control components in all 6.7-liter Power Stroke engines are as follows:

#### 1. Injection timing and in-cylinder controls

- Fuel is metered into the engine during the power stroke using an 68. injector with an electronic controller. Fuel can be delivered either before the piston reaches the top of its stroke (top dead center, or "TDC"), which is called "advanced timing" at the top of the stroke, or after TDC, which is called "retarded timing." Furthermore, fuel delivered to the cylinder is often delivered in distinct pulses rather than a single pulse, with the goal being to reduce emissions and improve efficiency. Generally speaking, advanced timing will increase NOx emissions and reduce particulate matter (PM) emissions (but improve fuel economy), while retarded timing will reduce NOx emissions and increase PM emissions. In-cylinder controls like injection timing play a critical role in the overall NOx emissions performance of the engine, as the emissions coming out of the cylinder must be low enough that the other emission control systems aren't pushed beyond their technical limits. If engine-out emissions of NOx are too high, the EGR and SCR systems may not be able to reduce NOx sufficiently to meet the standard.
- 69. The fuel system is also capable of injecting fuel very late in the combustion cycle, up to 140 degrees after engine top dead center. This late cycle fuel injection allows fuel to leave the cylinder unburned so it can react over the DOC to provide hot exhaust for the purpose of regenerating the DPF.

#### 2. EGR – Exhaust Gas Recirculation

70. Exhaust gas recirculation is used to reduce NOx emissions by introducing part of the exhaust exiting the engine back into the engine intake. Since oxides of nitrogen form in oxygen rich, high temperature environments, introducing exhaust gases back into the intake air charge reduces the amount of these compounds that form primarily by reducing the oxygen concentration and increasing the overall heat capacity of the combustion gas mixture. EGR results in lower peak temperatures during combustion and, in turn, lower NOx concentrations. Exhaust gas recirculation is not a new technology and has been regularly used on diesel engines for many years. Generally, the higher the EGR rate the greater the reduction in NOx emissions, though PM emissions are also generally increased, which causes the DPF to "fill up" more frequently and complicates the overall emission control strategy.

#### 3. DOC – Diesel Oxidation Catalyst

71. The diesel oxidation catalyst converts hydrocarbons and carbon monoxide into water and carbon dioxide through an oxidization reaction. The DOC also converts nitric oxide to nitrogen dioxide to generate favorable conditions for the reduction of NOx in the SCR system downstream of the DOC. The nitrogen dioxide generated by the DOC is also critical for proper function of the DPF, as nitrogen dioxide is used to remove captured PM from the DPF in a process called

passive regeneration. If insufficient nitrogen dioxide is available for passive regeneration, the engine may be forced to perform an active regeneration, a process that negatively impacts fuel economy and performance.

72. Also, as mentioned earlier, the DOC is used to oxidize late cycle injected fuel in order to provide heat to assist in active DPF regeneration.

#### 4. **DEF Injector**

73. Diesel exhaust fluid (DEF) is an integral part of the SCR system, as it provides the necessary reactant to allow the SCR system to reduce NOx. DEF is injected upstream of the SCR. DEF is composed of 32.5% urea, its active ingredient, distilled water, and a very small amount of additives. DEF is required for the selective catalytic reduction process to occur. The heat of the exhaust converts the DEF into ammonia, which in turn reacts with NOx in the SCR system. Generally speaking, within the design limits of the SCR system, higher DEF injection rates lead to larger reductions in NOx over the SCR system.

#### 5. SCR – Selective Catalytic Reduction

74. Once DEF is added to the exhaust, it travels through the selective catalytic reduction catalyst. Here, oxides of nitrogen (NOx) are converted to nitrogen gas (N2) and water (H2O) by means of a reduction reaction. The SCR system significantly reduces NOx emissions which allows for more freedom in the

calibration of the engine. The drawback of SCR is its increased complexity and the need to carry and replenish the DEF.

#### 6. DPF – Diesel Particulate Filter

75. Once the exhaust stream has been treated by the DOC and SCR, it travels through the diesel particulate filter (DPF), where particulate matter (soot) is trapped and stored. The captured material is cleaned through a process known as regeneration, which is divided into two strategies. First, passive regeneration occurs any time the vehicle is being operated, provided nitrogen dioxide concentrations are relatively high and the exhaust gas temperature is high enough. If those two conditions are met, nitrogen dioxide (NO2) will react with captured PM and oxidize it to CO2, thus cleaning out the DPF. It is a continuously occurring process, meaning that it occurs any time the conditions are met under normal operation, but the rate of regeneration is limited by the exhaust temperature and the concentration of NO2. Ideal DPF operation relies almost entirely on passive regeneration. Very low NO2 concentrations or very low exhaust temperatures can prevent passive regeneration from occurring. Second, active regeneration occurs only when the engine senses that the DPF needs to be cleaned as the DPF is approaching maximum capacity and generating too much exhaust backpressure (usually as a result of insufficient passive regeneration). During this process, the primary injection timing is retarded, which causes higher temperature exhaust to

leave the cylinder. These higher temperatures then pre-heat the DOC such that the late cycle fuel will react and generate sufficient heat for regeneration, approximately 600°C. This process creates very high temperatures that allow captured PM to oxidize in the DPF without the use a catalyst or NO2, thus "cleaning out" the DPF. This process is called "active regeneration." Active regeneration dramatically reduces fuel economy since fuel is being used for purposes other than moving the vehicle. For this reason, it is generally desirable to reduce the need for active regeneration and create conditions that are favorable for passive regeneration. Higher exhaust temperatures are also detrimental to the SCR catalyst as they can cause hydrothermal degradation of the catalyst over time.

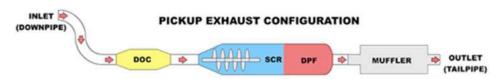
76. Most OEMs that use SCR opt for a configuration that puts the key components in the following order:

Normal Configuration: Diesel Oxidation Catalyst  $\rightarrow$  Diesel Particulate Filter  $\rightarrow$  SCR system

77. There are a few reasons to do this, but one primary reason is to expose the DPF to high levels of NOx. This is favorable for the successful passive regeneration of a DPF. The higher the NOx concentration, the better the DPF can remove the captured carbon without the need for fuel-consuming active regenerations, particularly when NOx emission reduction technologies like retarded engine timing and EGR tend to increase the rate at which the DPF accumulates PM.

78. Ford chose a configuration for the Power Stroke which is different from the common configuration. This configuration is shown below:

F-250 Configuration: Diesel Oxidation Catalyst  $\rightarrow$  SCR system  $\rightarrow$  DPF



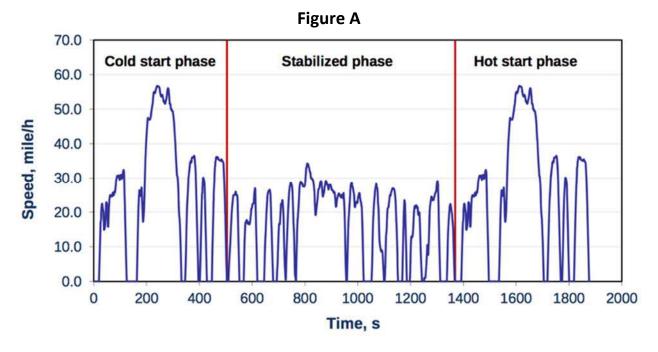
- 79. The Power Stroke configuration puts the DPF downstream of the SCR system—the last device in the chain to reduce NOx and bring it down to the emission standard—and therefore puts the DPF in an unfavorable location from a regeneration standpoint.
- 80. Ford does this specifically to address the cold start, and to a lesser extent the hot start, portions of the FTP-75 certification cycle, discussed below.
- 81. Ford wants the SCR catalyst to get as hot as possible as quickly as possible in the cold start test so that it can start doing its job of reducing NOx. If Ford put objects with a lot of heat capacity in the exhaust path upstream of the SCR system, they remove heat from the exhaust and slow the process of heating up the SCR system. In the meantime, cold start NOx emissions are very high and Ford may not pass the certification cycle. In this case, the high heat capacity object is the DPF. Ford put it downstream of the SCR so that it doesn't delay the heating up of the SCR catalyst to the temperature where it actually works (called light-off).

- 82. Putting the SCR as close to the engine as possible with as little material in the way as possible is great for cold start emissions and helps the OEM meet the emission standard.
- 83. This configuration creates an inherent conflict of functional intent with the operation of the DPF. In the configuration where the DPF is upstream of the SCR system, the manufacturer is happy to have the NOx coming out of the SCR system to be as low as possible.
- 84. Not the case with the Power Stroke configuration. A manufacturer like Ford wants NOx to be low so that it can meet the standard, but also to be high because Ford needs the high NOx going into the DPF to help keep it clean. As retarded engine timing and EGR further complicate the issue by increasing the engine-out PM emission rates, the need for passive regeneration is critical. If Ford can't keep the DPF clean with high NOx (i.e., "passive" regeneration), the only alternative is "active" regeneration, which comes with a fuel economy and performance penalty. Of course, reduced use of retarded engine timing and EGR come with the additional benefit of improved fuel economy.

#### C. Emission test cycles and emission standards

85. An emissions test cycle defines a protocol that enables repeatable and comparable measurements of exhaust emissions to evaluate compliance. The protocol specifies all conditions under which the engine is tested, including lab

temperature and vehicle conditions. Most importantly, the test cycle defines the vehicle speed over time that is used to simulate a typical driving scenario. An example of a driving cycle is shown in Figure A. This graph represents the FTP-75 (Federal Test Procedure) cycle that has been created by the EPA and is used for emission certification and fuel economy testing of passenger vehicles in the United States. The cycle simulates an urban route with frequent stops, combined with both a cold- and a hot-start transient phase. The cycle lasts 1,877 seconds (about 31 minutes) and covers a distance of 11.04 miles (17.77 km) at an average speed of 21.2 mph (34.12 km/h).



86. To assess conformance, these tests are carried out on a chassis dynamometer, a fixture that holds a car in place while allowing its driven wheels to turn with varying resistance meant to simulate the actual load on the engine during

on-road driving. Emissions are measured during the test and compared to an emissions standard that defines the maximum pollutant levels that can be released during such a test. In the United States, emissions standards are managed on a national level by the EPA. In addition, California has its own emissions standards that are defined and enforced by CARB. California standards are also adopted by a number of other states ("Section 177" states). Together with California, these states cover a significant fraction of the U.S. market, making them a de facto second national standard.

- 87. The FTP-75 is the primary dynamometer cycle used to certify lightand medium-duty passenger cars/trucks. This cycle is primarily a dynamic cycle, with rapid changes in speed and acceleration meant to reflect city driving along with some steadier higher speed sections meant to account for some highway driving.
- 88. One critically important thing to understand about the FTP-75 is that it's a "cold start" cycle. That means the vehicle starts the cycle with the engine having been off for at least eight hours and in a completely cold state. The "cold start" portion of the test is challenging for diesel engines like the Ford engine employing SCR because catalysts meant to control emissions are not yet at

<sup>&</sup>lt;sup>7</sup> Those states are: Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, Delaware, Georgia, and North Carolina.

temperatures where they work (i.e., above their "light-off" temperature). The FTP-75 also includes a "hot start" phase, which has similar issues resulting from cool down of catalysts before this phase begins.

- D. Ford Promoted the Super Duty vehicles as the "cleanest Super Duty diesel ever" with "best-in-class fuel economy" and "best-in-class towing" because Ford knew the environment, fuel economy, and towing capacity are material to a reasonable consumer.
- 89. Ford understood that a vehicle's pollution footprint is a factor in a reasonable consumer's decision to purchase a vehicle. Ford, in press releases, owner's manuals, and brochures that it intended to reach the eyes of consumers, promoted the Super Duty engine as delivering reduced NOx or having "reduced NOx emissions." Ford was acutely aware of this due to the public perception that diesels are "dirty."
- 90. Ford also understood that fuel economy was material to the average consumer. And Ford understood that since these were "working trucks," hence the label "Super Duty," that towing capacity was important to consumers.
- 91. The following are examples of Ford advertising promoting lower emissions, power, fuel economy, and towing capacity.

- 1. Ford advertising promises "a remarkable reduction" in emissions and fuel economy.
- 92. Ford's brochure for the 2011 Super Duty promised "class leading fuel economy" and towing capacity:<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> Exhibit 6, Ford's 2011 Super Duty brochure.



#### Introducing the 2011 Super Duty.®

That's right. **AMERICA'S MOST CAPABLE PICKUP** is now even better. Tested-tough new powertrains – designed, engineered and built by Ford – give Super Duty class-leading fuel economy. plus best-in-class diesel horsepower and torque? <u>Best-in-class maximum towing and payload capacities</u> get the job done when no one else can. Standard trailer sway control helps increase your towing confidence. It's no wonder F-Series has been America's best-selling truck for 33 years running. And this rugged workhorse is built to make it a whole lot more.

<sup>1</sup>Based on Ford drive-cycle tests of comparably equipped 2011 Ford and 2010/2011 competitive models.
<sup>2</sup>Class is Full-Size Pickups over 8500 lbs. GVWR. Based on comparison of 2011 MY competitive models. GVWR and GCWR when properly equipped.

2011 SUPER DUTY\*

ford.com



93. Ford also promised in its 2011 brochure that the Super Duty's engine was the "most tested power stroke diesel engine ever" and that the engine had been put through a "groundbreaking battery of computer simulations, lab and real-world tests." This means that if emissions exceed standards in common driving conditions, such an occurrence would have been discovered in light of the promised aforementioned extensive real-world testing. Ford promised the "best diesel and gas fuel economy of any truck in its class":



#### Already proven - beyond any other.

The new 2011 Super Duty\* endured more torture testing than any Ford Truck before it – including over 10 million cumulative miles on the MOST TESTED POWER STROKE® DIESEL ENGINE EVER. A world-class team put it through a groundbreaking battery of computer simulations, lab and real-world tests – running it for THOUSANDS OF HOURS ON END. In extreme conditions, Scorching heat, Bitter cold, Loaded to the max. Up the steepest grades. All to confirm that this truck is far more than the sum of its parts.

Super Duty is built to be the best – bringing you the **BEST DIESEL AND GAS FUEL ECONOMY** of any truck in its class<sup>1</sup> – plus lots of other capabilities and features only Ford can deliver.

#### **BEST IN CLASS**

- Max. Horsepower and Torque
- Max. Conventional Towing: 17,500 lbs?.3
- Max. 5th-Wheel Towing: 24,400 lbs3
- Max. Payload: 7,070 lbs3
- Fuel Economy: Diesel and Gas

#### **CLASS EXCLUSIVES**

- Live-Drive Power TakeOff (PTO)<sup>4</sup>
- 5th-Wheel/Gooseneck Trailer Tow Prep Package<sup>4</sup>
- Standard trailer sway control on both SRW and DRW
- LCD Productivity Screen<sup>4</sup>
- Standard Safety Canopy® System
- Ford Work Solutions™
- Tailgate Step4

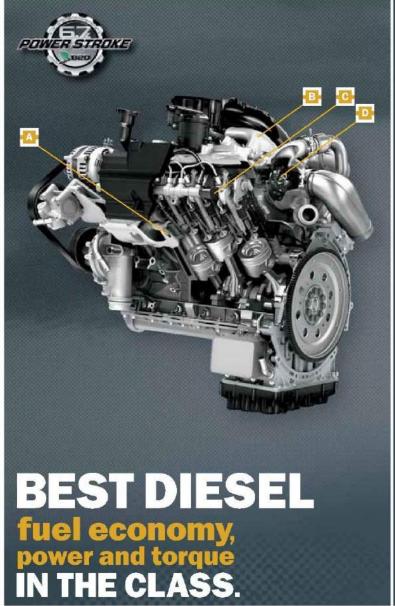
Class is Full-Size Pickups over 8,500 lbs. GVWR. Based on Ford drive cycle tests of comparably equipped 2011 Ford and 2010/2011 competitive models. <sup>1</sup>Available early 2011. <sup>3</sup>When properly equipped, 17,500 on F-350 DRW and F-450, 24,400 on F-450 Pickup, 7,070 on F-350 DRW Regular Cab 4x2, <sup>4</sup>Optional.

SUPER DUTY\*

ford.com



94. The 2011 Ford brochure makes specific promises about reducing NOx, including representations that the Super Duty is the "cleanest Super Duty diesel ever," the Super Duty "reduces nitrogen oxide (NOx) levels by more than 80%," and the Super Duty has the "best diesel fuel economy . . . in the class":



# 6.7L V8 DIESEL PERFORMANCE 14% MORE PEAK HP and 23% MORE PEAK TORQUE, at lower rpm, than its predecessor. 800 800 400 400 1.000 2.000 3.000 4.000 Engine speed (rpm)

- A ALUMINUM CYLINDER HEADS with precision dual water jackets reduce weight and improve cooling.
- B CLASS-EXCLUSIVE INBOARD EXHAUST AND OUTBOARD AIR INDUCTION architecture helps reduce turbo lag.
- C COMMON-RAIL FUEL INJECTION SYSTEM, operating at nearly 30,000 psi, uses precise control to provide optimum power, efficiency and noise, vibration and harshness (NVH) performance.
- D CLASS-EXCLUSIVE SINGLE-SEQUENTIAL TURBOCHARGER uses the compact, efficient design of a dual-sided compressor wheel to help deliver maximum power quickly.
- ENGINE-EXHAUST BRAKING helps provide better grade descent control with less brake and transmission wear and tear. Fully integrated with tow/haul mode, it provides increased engine braking at higher engine speeds.
- LOWEST NVH IN THE CLASS with a notably quieter, more refined sound than ever before – the result of meticulous attention paid to the designs of the combustion system, the engine block and the turbocharger.
- CLEANEST SUPER DUTY DIESEL EVER reduces nitrogen oxide (NOx) levels by more than 80% compared to last year.

#### Ford 6.7L Power Stroke® V8 Turbo Diesel.

Designed, engineered and built by Ford, this heavy-duty diesel helps Super Duty® deliver up to a **20% IMPROVEMENT IN FUEL ECONOMY** over the previous model, making it the best in its class! It also gives you best-in-class horsepower and torque. We're talking **400 HP** and a massive **800 LB.-FT. OF TORQUE**. That's a game-changing combination. And this **B20-CAPABLE** engine has already proven itself in over 10 million miles of cumulative testing. It's the **MOST TESTED POWER STROKE DIESEL ENGINE EVER**.

Based on Ford drive-cycle tests of comparably equipped  $2011\,\mathrm{Ford}$  and  $2010/2011\,\mathrm{competitive}$  models

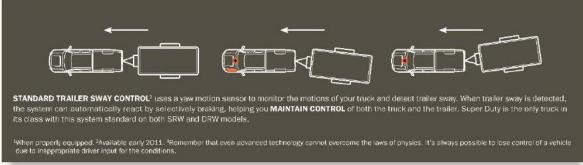
2011 SUPER DUTY\*

ford.com



- 95. Having made representations about the Super Duty's fuel economy, that it's the "cleanest Super Duty diesel ever," and that it reduces NOx by 80%, Ford had a duty to disclose material facts regarding those representations, including the fact that the NOx reduction often only occurs when the vehicle operates in the conditions present in an emissions testing environment; that outside of the testing environment, the vehicles polluted heavily; and that the fuel economy was achieved by reduction of the emission controls in many common driving conditions.
- 96. The 2011 brochure also represented that the Super Duty has "best-inclass towing capabilities," but failed to disclose that this capability was only possible by software that turned emission controls down or off such that emissions can exceed standards by a factor of 30 to 50:





2011 SUPER DUTY\*

ford.com



97. In its 2012 brochure, Ford again repeated its promises that the Super Duty is the "best-in-class" in "fuel economy," that the engine was "the most tested Power Stroke diesel engine ever," going through a "groundbreaking battery of computer simulations," even "loaded to the max" and "up the steepest grades." And Ford promised the "best diesel and gas fuel economy of any truck in its class":9

<sup>&</sup>lt;sup>9</sup> Exhibit 7, Ford's 2012 Super Duty brochure.



### **OUTWORKS ALL THE REST.**

This truck endured more torture testing than any generation of Ford Truck before it — including over 10 million cumulative miles on the most tested Power Stroke® diesel engine ever. A world-class team put this Super Duty® through a groundbreaking battery of computer simulations, lab and real-world tests — running it for thousands of hours on end in extreme conditions. Scorching heat, Bitter cold. Loaded to the max. Up the steepest grades. All to confirm that this truck is far more than the sum of its parts.

Super Duty is built to be the best — bringing you the best diesel and gas fuel economy of any truck in its class! — plus lots of other capabilities and features only Ford can deliver.

#### **Best in Class**

- Fuel Economy: Diesel and Gas
- Max. Horsepower and Torque: Diesel and Gas
- Max. Conventional Towing: 17,500 lbs.²
- Max. 5th-Wheel Towing: 24,500 lbs?
- Max. Payload: 7,110 lbs.2

#### Class Exclusives

- Live-Drive Power TakeOff (PTO)<sup>3</sup>
- 5th-Wheel/Gooseneck Trailer Tow Prep Package³
- Standard Trailer Sway Control on both SRW and DRW
- LCD Productivity Screen<sup>3</sup>
- Standard Safety Canopy® System
- Tailgate Step³

F-350 LARIAT Crew Cab 4x4. Golden Bronze/Pale Adobe two-tone. Available equipment.

\*Class is Full-Size Pickups over 8,500 lbs. GVWR. Based on Ford drive-cycle tests of comparably equipped 2011 Ford and 2010/2011 competitive models.

\*When properly equipped vs. 2011/2012 competitors. 24,500 on F-450 Pickup. 7,110 on F-350 DRW Regular Cab 4x2. \*Available feature.

BUILT

2012 SUPER DUTY® ford.com

98. The 2012 brochure repeated Ford's promise of a clean diesel:

**Cleanest Super Duty diesel ever.** This engine utilizes industry-proven technology and innovative Ford strategies to meet the latest federal emissions standards – reducing nitrogen oxide (NOx) levels by more than 80% compared to the previous generation diesel. For your part, just watch for a low diesel exhaust fluid (DEF) alert in the vehicle's message center, then locate the blue DEF fill cap next to your green diesel fuel cap and replenish the DEF supply. The reservoir holds 5 gallons of Ford-approved DEF, which can be purchased from your Ford Dealer or other authorized retailers.

- 99. Having made representations about fuel economy and the reduction of NOx, Ford had a duty to disclose material facts regarding those representations, including the fact that the NOx reduction only occurred when the vehicle operated in the conditions present in an emissions testing environment, but outside the testing environment the vehicles polluted heavily, and that the promised fuel economy was only achieved by reduction of the emission controls.
- 100. The 2012 brochure also repeated promises of "class-leading fuel economy" and "towing and payload capacities":



F-350 LARIAT Crew Cab 4x4. Dark Blue Pearl/Sterling Gray two-tone. Available equipment.

<sup>1</sup>Best-in-class maximum payload and towing when properly equipped. Class is Full-Size Pickups over 8,500 lbs, GVWR vs. 2017/2012 competitors. 
<sup>2</sup>Based on Ford drive-cycle tests of comparably equipped 2011 Ford and 2010/2011 competitive models.



2012 SUPER DUTY° ford.com

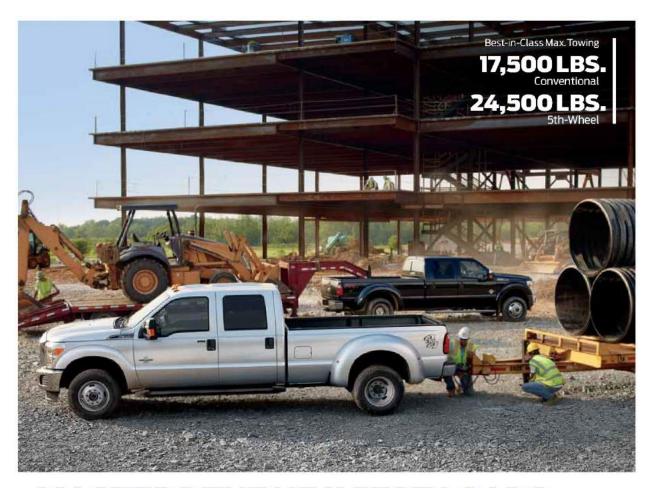
- 101. It is not plausible, given this "groundbreaking" testing, that Ford and Bosch did not know, as detailed below, that the emission controls do not work when the vehicle is operating in normal stop-and-go conditions, running under heavier loads, and going up modest to steep grades.
- 102. The 2012 brochure made additional representations about fuel economy, horsepower, and torque, and the vehicle being the "cleanest Super Duty diesel ever":

# ESEL BEATS THE COMPETITION deliver up to a 20% improvement in fuel economy over the previous generation, making it the best in its class! It also gives you best-in-class horsepower and torque. We're talking 400 hp and a massive 800 lb.-ft. of torque. That's a game-changing combination. And this B20-capable engine has already proven itself in over 10 million miles of cumulative testing. It's the most tested Power Stroke diesel engine eyer. 11111 Best-in-class diesel 800 lb.-ft. of torque Best-in-class diesel 400 horsenower Delivers maximum power quickly. The diesel engine's class-exclusive single-sequential turbocharger features the compact, efficient design of a dual-sided compressor wheel. Helps maintain the peace. With its notably quiet, refined sound, our dieset produces the lowest NVH in the class – the result of meticulous attention paid to the combustion system, engine block and turbocharger designs. 400 Powers upfits any time the engine's running. Whether you're in motion or at a complete stor, you can power your opfits with the dieset and our class-exclusive liver-lake power takeoff (PTO) provision. If keeps the job going with an output gear thised office tilly to the engine cranishant. Cleanest Super Dury diesel ever. This engine utilizes industry -proven be funciong and innovative Ford strolegies to meet the latest federal emissions standards—seducing nitrogen code (RCA) levels by more than 50% connect of the federal emissions standards—seducing nitrogen code (RCA) levels by more than 50% connect of the federal emissions standards—seducing nitrogen code (RCA) levels by more than 50% connect of the federal emissions standards—and introduced for your part, lost what for a bit of level exhaust function of the federal emissions of the federal e

103. The 2012 brochure also represented that the Super Duty has best-inclass towing. Ford knew many consumers purchased heavy duty trucks to put a load on them and that towing capacity was material. Ford did not disclose that emission controls are derated at common loads:

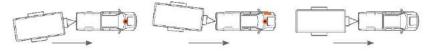
2012 SUPER DUTY' ford.com

Based on Ford-drive-cycle tests of comparably equipped 2011 Ford and 2010/2011 competitive models. Available feature



# MASTERS THE HEAVIEST LOADS.

Super Duty<sup>8</sup> reigns supreme with best-in-class towing capabilities! class-exclusive features and available systems like trailer sway control to help give you ultimate towing confidence. With the diesel powertrain, integrated engine-exhaust braking helps improve your control with less wear and tear on the brakes and transmission. It's the kind of functionality you'll really appreciate when you're hauling a heavy load or towing a trailer, and especially when you're descending steep grades.



**Helps you keep it in line.** Our standard trailer sway control<sup>2</sup> uses a yaw motion sensor to monitor the motions of your truck and detect trailer sway. It can automatically react when sway is detected by selectively braking to help you maintain control of both the truck and the trailer. Super Duty is the only truck in its class with this system standard on both SRW and DRW models.

F-350 XLT Crew Cab DRW 4x4. Ingot Silver. F-450 LARIAT Crew Cab DRW 4x4. Black. Available equipment shown on each.

When properly equipped. "Remember that even advanced technology cannot overcome the laws of physics. It's always possible to lose control of a vehicle due to inappropriate driver input for the conditions."



2012 SUPER DUTY\* ford.com

104. In the brochure for the 2013 Super Duty, Ford repeated promises of "best-in-class" diesel fuel economy and that it was the "cleanest Super Duty Diesel ever": 10

#### DIESEL BEATS THE COMPETITION 3 TIMES OVER.

Best-in-class horsepower, torque and fuel economy.¹ The 6.7L Power Stroke® V8 Turbo Diesel gives you all 3. With this advanced engine, Super Duty® delivers 400 hp, 800 lb.-ft. of torque, and up to a 20% improvement in fuel economy over the previous generation, making it the best in its class. Designed, engineered and built by Ford, the 6.7L features many innovative details including aluminum cylinder heads with precision dual water jackets that help minimize weight and maximize cooling. It's also the most tested Power Stroke diesel ever. This B20-capable engine has proven itself in over 10 million miles of cumulative testing under extreme conditions from 120°F scorching heat to -40°F bone-chilling cold. It's Built Ford Tough.®

Cleanest Super Duty diesel ever. This engine generation utilizes industry-proven technology and innovative Ford strategies to meet the latest federal emissions standards – reducing nitrogen oxide (NOx) levels by more than 80% compared to the previous-generation diesel. For your part, just watch for a low diesel exhaust fluid (DEF) alert in the vehicle's message center, then locate the blue DEF fill cap and replenish the DEF supply. The reservoir holds 5 gallons of Ford-approved DEF, which can be purchased from your Ford Dealer or other authorized retailers.

- 105. Having made representations about fuel economy and the reduction of NOx, Ford had a duty to disclose material facts regarding those representations, including the fact that the NOx reduction only occurred when the vehicle operated in the conditions present in an emissions testing environment, and that after outside of the testing environment the vehicles polluted heavily, and that the promised fuel economy was achieved by a reduction in the NOx emission controls.
- 106. The 2013 brochure also repeated representations from prior brochures about towing capacity and failed to disclose that at loads requiring more than 70–80% of rated torque for a particular engine speed (conditions that are very commonly experienced), the emissions systems are tuned to produce NOx levels 30–50 times the standard.

<sup>&</sup>lt;sup>10</sup> Exhibit 8, Ford's 2013 Super Duty brochure.

107. In the brochure for the 2014 Super Duty, Ford promised "best-in-class diesel fuel economy" on the first page:<sup>11</sup>



108. In the 2014 brochure, Ford promised that the Power Stroke was the "diesel leader" in fuel economy:

<sup>&</sup>lt;sup>11</sup> Exhibit 9, Ford's 2014 Super Duty brochure.



"based on Ford simulated city-suburban drive-cycle tests of comparably equipped 2014 Ford and 2011–2013 competitive models, consistent with SAE Standard J1321. "Available feature.

UPER DUTY TOUGH

109. Having made representations about fuel economy and the reduction of NOx, Ford had a duty to disclose material facts regarding those representations, including the fact that the NOx reduction only occurred when the vehicle operated in the conditions present in an emissions testing environment, and that outside of the testing environment the vehicles polluted heavily, and that the promised fuel economy was achieved by reduction of the emission controls. Ford also failed to disclose that "best-in-class torque" came at the expense of extreme NOx emissions.

- 110. The 2014 brochure also promised best-in-class towing capability without disclosing that such capability was only achieved by derating emission control.
- 111. The 2015 brochure continued to promise "improved power and performance" and "best-in-class diesel fuel economy" from a "cleaner burn:" 12

**Best-in-class diesel fuel economy**<sup>2</sup> is maintained with the help of new high-pressure fuel injectors that achieve a more efficient, cleaner burn.

- 112. Having made representations about fuel economy and the reduction of NOx, Ford had a duty to disclose material facts regarding those representations, including the fact that the NOx reduction only occurred when the vehicle operated in the conditions present in an emissions testing environment, and that outside the testing environment the vehicles polluted heavily, and that the fuel economy was achieved by reduction of the emission controls.
- 113. The 2015 brochure repeated the representation that the vehicles had undergone extensive testing under extreme conditions. Assuming this is true, it is not plausible that Ford and Bosch were unaware that emission controls did not function and were purposely not working during many common driving conditions.
- 114. The 2015 brochure also represented that it is the only truck in its class offering up to 31,200 pounds of towing capacity, but the brochure omitted the fact

<sup>&</sup>lt;sup>12</sup> Exhibit 10, Ford's 2015 Super Duty brochure.

that emission controls are turned off or turned down under common load conditions, allowing emissions to exceed standards by 30 to 50 times.

115. The Ford 2016 brochure promised best-in-class diesel fuel economy from a "clean, efficient burn" on an engine "proven in over 12 million miles of cumulative testing":<sup>13</sup>



116. Having made representations about fuel economy and the reduction of NOx, Ford had a duty to disclose material facts regarding those representations, including the fact that the NOx reduction only occurred when the vehicle operated in the conditions present in an emissions testing environment, and that outside the

<sup>&</sup>lt;sup>13</sup> Exhibit 11, Ford's 2016 Super Duty brochure.

testing environment the vehicles polluted heavily, and that the promised fuel economy was achieved by reduction of the emission controls.

117. The 2017 Super Duty brochure promised that the vehicles have been tested in the "real world," not just on proving grounds. Ford knew that real-world performance was material to consumers.<sup>14</sup>



- 118. Ford did not disclose real-world emissions performance, as detailed below.
- 119. The 2017 brochure continued Ford's promise of best-in-class towing capacity and "unsurpassed diesel fuel economy."

<sup>&</sup>lt;sup>14</sup> Exhibit 12, Ford's 2017 Super Duty brochure.





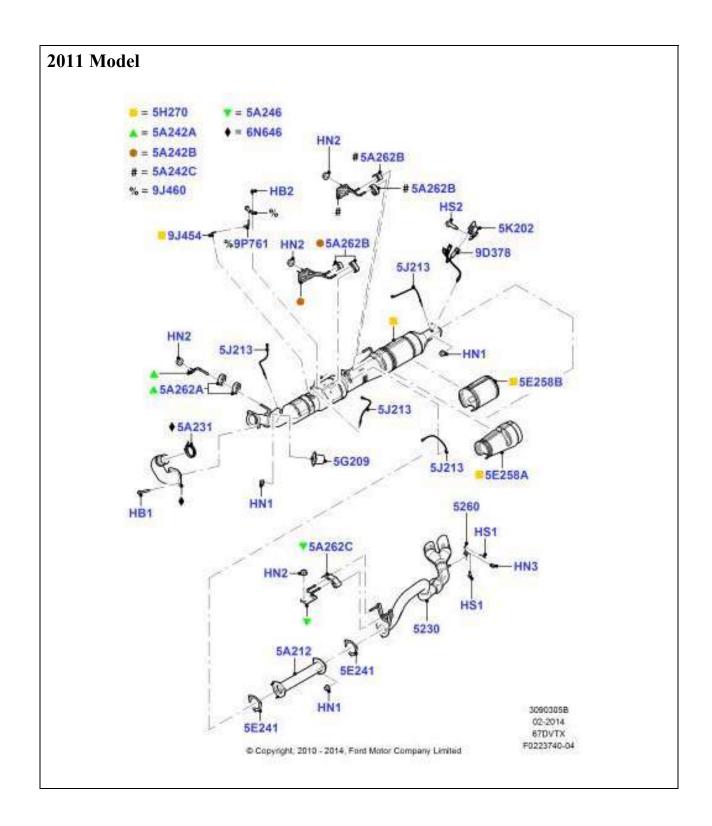
120. The 2017 brochure post-dates the Volkswagen emissions scandal, which broke on September 16, 2015. This brochure no longer proclaims that the engine reduces NOx by 80% or that it's the "cleanest Super Duty diesel engine."

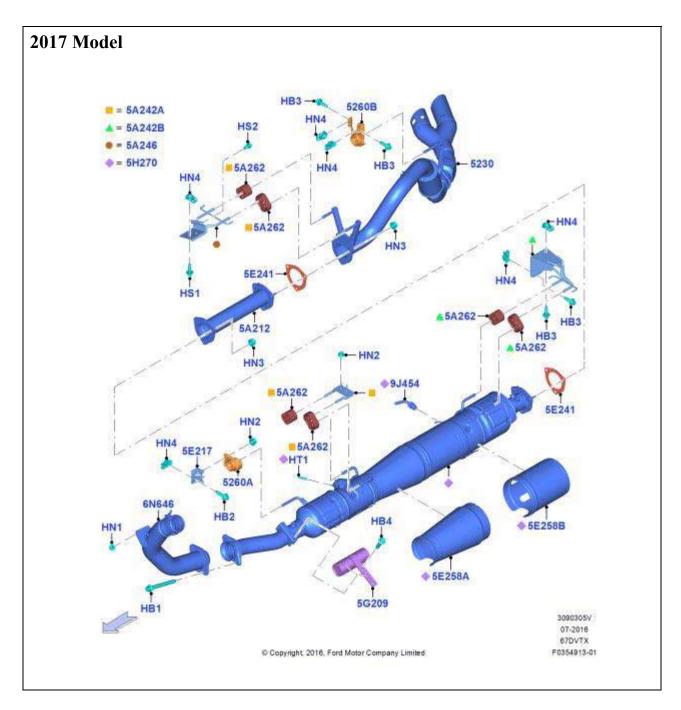
# E. The deception

# 1. The diesel test setup

121. Plaintiffs have extensively tested a 2014 F-250 diesel and 2016 F-250 diesel using a Portable Emissions Measurement System (PEMS), and, as explained below, these are representative of 2011–2017 vehicles with respect to emissions.

122. Testing was conducted on a model year 2014 Ford F-250. This vehicle is representative of the entire 2011–2017 F-250 and F-350 diesel-equipped Super Duty product line, as no major changes were made to engine architecture over that time period. For example, the diagrams below detail the aftertreatment systems. As can be seen, no significant changes have been made from the first 2011 design to the current 2017 design.





123. The test vehicle underwent a rigorous inspection and check-in process. The vehicle was put on a hydraulic rack, the underbody cowlings were removed, and the emission control system was inspected to ensure that the parts were intact and free from damage.

- 124. The vehicle was also checked for engine faults and maintenance history to ensure that the regular scheduled maintenance was performed, that the vehicle was free from accidents, and that there were no fault codes indicating any problems with the emission control system.
- 125. The tire pressure was adjusted to the recommended specification and the vehicle weight was set to the certification test weight of 9,000 pounds using sand bags for ballast. The final weight with driver and test system was confirmed on a scale.

### 2. PEMS testing is reliable an accurate.

- 126. The vehicle was tested over a variety of conditions using a portable emission measurement system (PEMS). PEMS is a collection of measurement devices that allow the measurement of gaseous vehicle emissions of oxides of nitrogen, total hydrocarbon, methane, carbon monoxide, and carbon dioxide as well as particulate matter (PM) emissions during on-road driving of light- and heavy-duty vehicles. The system is essentially a "portable laboratory" that allows measurement of emissions outside of a conventional chassis dynamometer-based laboratory setting of the type used for certification testing.
- 127. These systems are highly accurate when compared to conventional chassis dynamometer tests used for vehicle emissions certification. In fact, their accuracy is such that they are currently integrated into the European vehicle

emission certification process to test RDE (real driving emissions). Both EPA and CARB employ PEMS as part of the heavy duty in-use compliance program to measure emissions against the not to exceed (NTE) standards, where procedures have been codified in the code of federal regulations. Furthermore, both CARB and EPA make wide use of PEMS to evaluate vehicles for the presence of defeat devices. One such study, published by the Center for Alternative Fuels and Emissions (CAFEE) in collaboration with CARB, made heavy use of PEMS to discover the presence of defeat devices in Volkswagen diesels.<sup>15</sup>

128. PEMS has been used since the 1990s to measure real-world vehicle emissions performance. These systems are manufactured by highly respected and well-established emissions measurement equipment suppliers like AVL, Horiba, and Sensors Incorporated. All three of these companies are leading suppliers of emissions measurement systems used for vehicle and engine certification, and they bring their experience in conventional emissions analyzers to bear in designing PEMS. Conventional gas analysis systems are very large and complex. Since the years when chassis dynamometer testing was originally introduced, advances in analyzer technologies over the past three decades have allowed for the miniaturization of conventional laboratory analyzers, yielding major size and weight reductions. These technological advances made it possible for high-

<sup>&</sup>lt;sup>15</sup> Thompson, Gregory J., *et. al.* "In-Use Emissions Testing of Light-Duty Diesel Vehicles in the United States," CAFEE publication, May 15, 2014.

accuracy emissions analyzers to be deployed on vehicles while driving on the road outside of the laboratory setting.

- 129. Conventional emissions testing used for certification of vehicles is performed on a chassis dynamometer. The dynamometer is a "treadmill" for the driven wheels of a vehicle. The driven wheels are placed on rollers attached to one of more flywheels and an electric motor capable of simulating the forces on the vehicle during real-world driving on the road. The chassis dynamometer simulates inertial forces (i.e., the resistance to acceleration or deceleration from the vehicle's weight), static friction, rolling resistance, and aerodynamic drag. When properly calibrated, the chassis dynamometer will simulate real-world driving with a high degree of accuracy. A "coastdown" procedure is used to verify that rolling resistance and drag are accurately simulated. However, the inertial load simulation requires very rapid and precise response from the electric motor for high accuracy. Slow responding systems can under-load the vehicle during acceleration. By contrast, real-world inertial forces on the vehicle are inherent in PEMS testing since this testing is conducted on the road in normal driving.
- 130. The analyzers used to measure gaseous emissions in the chassis dynamometer setting are accurate to within 1% of the full measurement scale.

  These analyzers are calibrated before and after each emissions test to ensure that they deliver a high level of accuracy and that the calibration does not appreciably

change (or drift) during the emissions test. Furthermore, analyzers undergo monthly 10-point calibrations to ensure their response is accurate throughout the measurement range of each analyzer. These measurements are supplemented with high precision measurement of ambient temperature and relative humidity. NOx is adjusted for those values.

- 131. PEMS analyzers are subject to the same requirements. In fact, analyzers used by the experts have an accuracy of 0.3% of full scale, well within the 1% requirement used for chassis dynamometer analyzers. These analyzers are also subject to the same monthly 10-point calibration to ensure accuracy throughout the measurement range. The analyzers are also calibrated before and after each test to ensure that they are both accurate and free of excessive drift. Drift has been shown to be far less than 1%, even after several hours of testing. PEMS also employs high accuracy temperature and relative humidity measurements to adjust NOx.
- 132. Put simply, the analyzers used in chassis dynamometer testing and PEMS testing have virtually identical levels of accuracy and are subject to the same strict requirements for calibration and drift.
- 133. One primary difference between PEMS and chassis dynamometer emissions testing is that the latter mixes the raw exhaust with ambient air in a dilution tunnel to simulate the effects of vehicle exhaust mixing with ambient air

immediately after emission from the tailpipe. In the case of PEMS, the raw exhaust emissions are measured. The dilution tunnel has the largest effect on particulate matter measurements, where sulfate and hydrocarbon aerosols may be formed during the dilution process, thereby increasing particulate matter emissions. In modern diesels using low-sulfur fuels, these effects are much less important than in the past, where hydrocarbon and sulfate formation was much higher. The effect on gaseous pollutants, and in particular NOx, is negligible. Therefore, the raw gas measurement of NOx taken during PEMS testing will closely match the diluted exhaust measurement taken in a dilution tunnel.

134. A wide variety of studies have been performed over the years to validate the accuracy of PEMS. One such study, conducted by experts at Ricardo UK, one of the world's leading vehicle research and development companies, concluded that "NOx emissions agreed within ~10% across a wide range of values." When considering that defeat devices result in emissions that are often several times, or even orders of magnitude, higher than the relevant emissions standards, this level of agreement with chassis dynamometer emissions measurement is more than sufficient to identify the presence of defeat devices and to quantify the effects.

<sup>&</sup>lt;sup>16</sup> Anderson, Jon, *et. al.*, "On-Road and Chassis Dynamometer Evaluations of Emissions from Two Euro 6 Diesel Vehicles," SAE 2014-01-2826, October 2014.

- 135. That being said, test conditions are highly controlled in a chassis dynamometer laboratory setting. Ambient temperature, wind, and road quality are consistent from test to test. Although PEMS measures emissions with a high degree of accuracy, great care must be taken to ensure that the driving conditions are representative, consistent, and can be compared to the emission standards in a meaningful way. However, a well-designed PEMS test program can account for ambient temperature, traffic variability, relative positive acceleration (RPA—i.e., the "hardness" or "softness" of the driver's driving style), road quality, and wind speed. The effect of wind speed, in particular, can be averaged out by conducting a large number of tests with variable wind conditions. Tests are typically repeated dozens of times, with careful attention paid to, among other things, the average cycle speed, ambient temperature, RPA, and road grade.
- 136. It is important to note that, in order to perform chassis dynamometer testing to certify a vehicle, on-road data must be collected for each vehicle that is tested to obtain a proper model of the vehicle's rolling resistance and aerodynamic drag (called the vehicle's "road load model"). This procedure is conducted over the road and must be repeated multiple times to account for the effects of variable wind speeds and directions. This kind of repetition is no different than that required to average out the effects of wind speed during PEMS testing.

- 137. In order for the chassis dynamometer to simulate real-world driving accurately, the testing conducted over the road to create the road load model must be generated with great care, accounting for effects like tire pressure, drive train resistance, state of maintenance, vehicle inertial load, et cetera—the same issues that must be addressed when conducting PEMS tests.
- dynamometer certification cycle over the road using a PEMS by simply following the same vehicle speed cycle in a carefully controlled setting. Special test software has been developed by experts to allow these test cycles to be performed on the road. In the case of medium-duty passenger vehicles, like the Ford F-250, it is virtually impossible to test the full combined weight rating of 24,000 pounds on a chassis dynamometer, as most of these dynamometers either lack the ability to simulate those inertial loads or maintain traction of the driven wheels on the dynamometer roller (or rollers) during testing. For the same reason, sharp accelerations and aggressive driving can be problematic for these heavier vehicles.
- 139. High ambient temperatures can generally not be tested in a chassis dynamometer laboratory; the same is true of very low temperatures. During certification testing on the FTP-75 and HWFET, ambient temperature is controlled to a narrow window between 68°F and 86°F. PEMS testing can be conducted at a

wide variety of temperatures, which is important because many defeat devices are triggered based on changes in ambient temperature.

- 140. Importantly, it is often not possible to test conditions on a chassis dynamometer that might be experienced in the real world. As was discovered during the Volkswagen diesel scandal, the vehicle's engine control module can often detect that the vehicle is being tested on a chassis dynamometer. In addition to being able to detect that a certification test cycle is being run, as with Volkswagen, vehicles can use various sensors to determine the vehicle is on a chassis dynamometer. Types of algorithms used to detect a chassis dynamometer include, but are not limited to, the following:
  - a) driven wheels are moving but the front wheels are not turning, a condition only experienced on a chassis dynamometer;
  - b) on a 2-wheel drive vehicle, the driven wheels are moving but the non-driven wheels are not, a condition only experience on a chassis dynamometer; and
  - c) on a vehicle equipped with GPS, the vehicle's wheels are moving while the GPS position is not changing.
- 141. For this reason, while testing on a chassis dynamometer for defeat devices, it can never be ruled out that the vehicle can detect that it is being tested on a chassis dynamometer. Therefore, results from chassis dynamometer testing may be dramatically different than those measured in real-world driving. In contrast to chassis dynamometer testing, the vehicle cannot detect the presence of a

PEMS. PEMS is not only accurate for detection and quantification of defeat devices. It is essential.

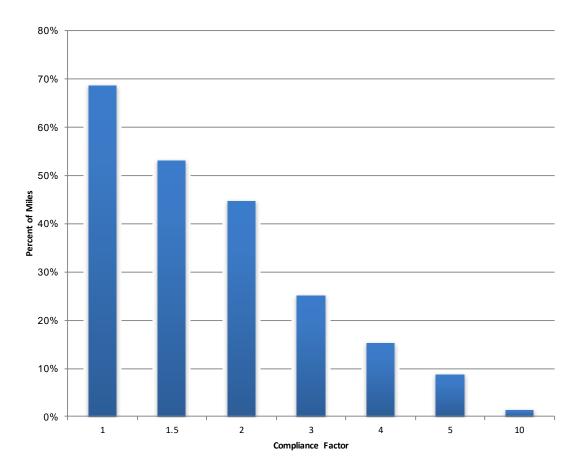
### 3. Testing results indicate higher than expected emissions.

142. Plaintiffs' experts created a special program that is specific to the Ford F-250 to allow communication with the vehicle's computer (ECM) in order to extract important operational information like exhaust temperatures, EGR rates, NOx concentrations upstream of the SCR catalysts, engine timing, and other information.

### 4. Ford F-250 testing

### a. FTP-75 style driving

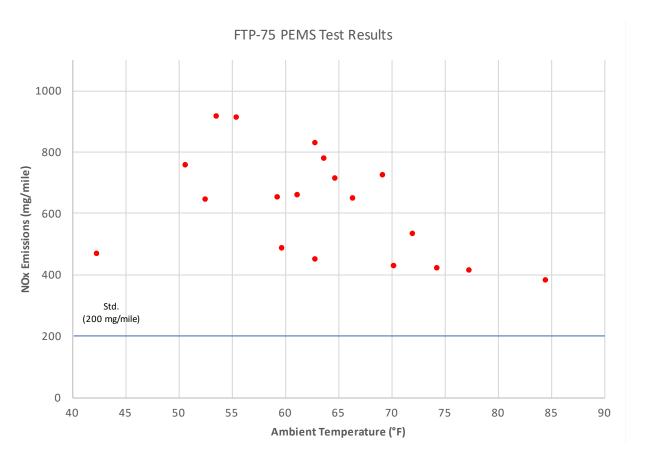
- 143. Testing was conducted in a wide variety of stop-and-go conditions and was conducted in a manner to ensure average test speeds and relative positive accelerations were closely correlated with those typified by the FTP-75 certification test cycle. Over the course of 1,169 miles of testing under these conditions, emissions were found to be 470 mg/mile on average, or 2.4 times the standard. In many conditions, emissions were found to be as high as 1,473 mg/mile on a sustained basis of 10 miles or more.
- 144. The "compliance factor" for this vehicle in FTP-like conditions is shown below. The compliance factor is based on the vehicle standard and is a multiple of the standard. For example, a compliance factor of 2 means that that vehicle emissions are twice the standard.



145. The vehicle spends 69% of the vehicle miles traveled (VMT) above the standard (i.e., a compliance factor of 1). The vehicle spends 45% of VMT at twice the standard or more (i.e., a compliance factor of 2), and 9% of VMT at 5 times the standard or more.

146. Furthermore, Plaintiffs' experts developed software that allowed the test vehicle to be driven on the FTP-75 test cycle over the road. Since the test cycle is simply a specific sequence of vehicle speeds, the test cycle can be fully repeated over the road with a PEMS system. The cold start, stabilized, and hot start portions of the cycle were conducted, measured, and weighted in accordance with the

standard.<sup>17</sup> The tests were carefully conducted on conditions with flat road for direct comparison with the certification test cycle, which only measures flat road emissions. The results are plotted below vs ambient temperature.



147. In no case did the test vehicle meet the standard of 200 mg/mile.

Average emissions as measured by the PEMS during the FTP-75 simulation testing were 682 mg/mile, or 3.4 times the standard. Moreover, the results appear to increase to levels as high as 900 mg/mile at lower ambient temperatures around 52°F, though by no means cold given the range of ambient operating conditions expected in the United States.

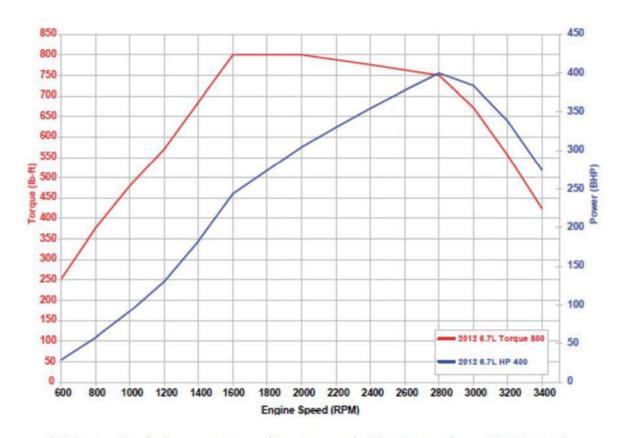
<sup>&</sup>lt;sup>17</sup> Weighting factors of 0.43, 1, and 0.57 are used for the cold start, stabilized, and hot start phases of the cycle, respectively.

148. Significantly, OBDII regulations for this 2014 model year vehicle require that the vehicle's on-board diagnostics (OBD) systems be able to identify malfunctions in the sensors and catalyst systems that would cause an increase in NOx between 1.5–1.75 times the standard on the FTP-75. Since the vehicle experiences a wide variety of operating conditions during normal driving, results from the OBD have to be translated by the ECM back to expected results on the FTP-75 test. In this case, no translation is required, as the FTP-75 itself was used to measure emissions. Although emissions are consistently 3.4 times the standard and as high as 4.6 times the standard, the OBD system does not trigger the malfunction indicator lamp (MIL). Thus, the vehicle's own OBD software indicates emission control system to be operating as Ford intended, even though its real-world performance grossly exceeds the standard.

## b. Steady highway testing

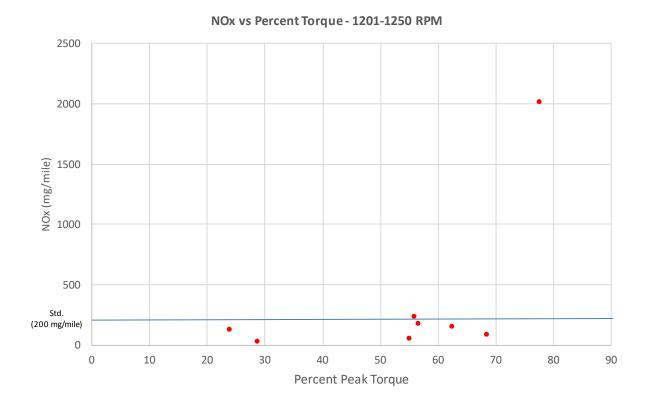
149. Testing at higher power loads has demonstrated that the vehicle consistently produces extreme levels of NOx, at times 50 times the emission standard of 200 mg/mile, when operating at engine power loads outside those found on the certification test cycles, but in conditions that are common in normal real-world operation. The torque and power curves for the 2014 model year Power Stroke engine are presented below. The plot shows the maximum power and torque for each engine operating speed (RPM). These power characteristics are typical of

a diesel engine, where available torque (red line) quickly increases with engine speed and then levels off at a near-constant value for much of the engine's operating speed range. Maximum power, which is the product of engine speed and engine torque, is achieved with high torque and high engine speed. Of course, the engine is tied to a transmission, which has the ability to alter engine speed for a given power demand by changing the gear. The amount of available power changes with engine speed (blue line). Peak torque is defined by the manufacturer and programmed into the ECM and is controlled by limiting the maximum fuel injection rate at each engine speed.



6.7L Power Stroke horsepower and torque graph, 2011 MY update - 2014 MY ratings

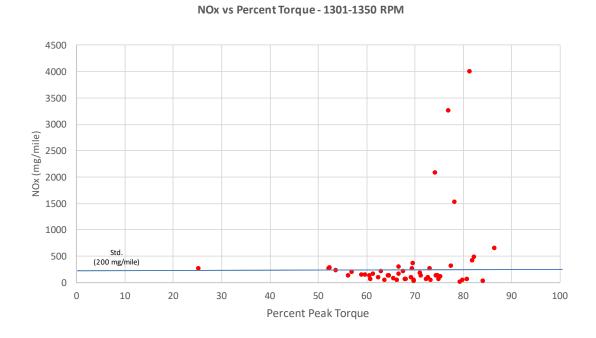
- 150. The vehicle was tested at a variety of steady engine speed and load conditions over 3,229 miles of testing, both by varying the vehicle speed between 40 and 60 mph (common speeds experienced during normal highway driving) and by operating the vehicle on modest hills to increase load on the engine. A handful of tests were also conducted at 70–75 mph, speeds which are common on freeways. Emissions were measured during testing using a PEMS system.
- 151. In normal operation with the vehicle loaded at 9,000 pounds certification test weight, the engine speed on the Power Stroke engine rarely exceeds 1600 RPM. The vehicle is, in fact, rated to carry 10,000 pounds on its own chassis (vehicle weight plus payload). The vehicle is also rated to carry additional load with a trailer loaded up to 14,000 pounds, for a total combined weight of 24,000 pounds (10,000 pound truck plus 14,000 pound trailer). Thus, a total test weight of 9,000 pounds only tests a very small window of the engine's power capability and does not test for emissions with weights in excess of 9,000 pounds, such as when the vehicle is towing or when the truck is loaded to its full 10,000 pound capacity (gross vehicle weight rating without a trailer).
- 152. Tests were conducted at a variety of engine speeds and the resulting NOx emissions were measured for different engine power levels (i.e., loads). The results for tests between 1201 and 1250 RPM are plotted below.



153. The vehicle meets the standard of 200 mg/mile up to about 70% of rated power/torque. After 70% of rated power, emissions increase dramatically to 10 times the standard (about 2,000 mg/mile). The effectiveness of the emission control systems are dramatically altered above 70% rated power. At the test weight of 9,000 pounds, these engine conditions would be experienced, for example, when the vehicle is traveling steady at 50 mph on a road grade as modest as 2.3%. At the full combined weight rating of 24,000 pounds, the engine would expect to see the same conditions on a 0.9% grade.

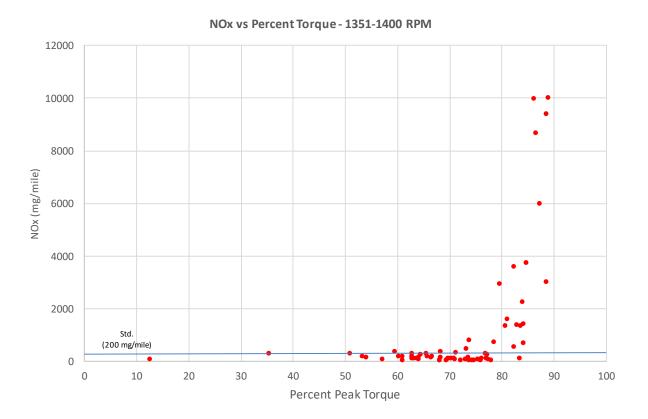
Configuration	EGR (%)	SCR (% Reduction)	Engine Timing (degree crank angle)
Below 70%	21.2%	91%	0.726
Above 70%	8.9%	73%	1.792

- 154. Engine timing is advanced after reaching the 70% threshold from 0.726 degrees before top dead center (BTDC) to 1.792, while the rate of EGR is reduced significantly from 21.2% to 8.9% and SCR is reduced from 91% to 73% reduction, which means the emission controls systems are deliberately and significantly derated (i.e., made less effective) under such conditions.
  - 155. The results for tests between 1301 and 1350 RPM are plotted below.



156. Between 70% and 80% of peak power/torque at that speed, emissions increase dramatically to as much as 20 times the standard. At the test weight of 9,000 pounds, these engine conditions would be experienced, for example, when the vehicle is traveling steady at 58 mph and a road grade as modest as 2.9%. At the full combined weight rating of 24,000 pounds, the engine would expect to see the same conditions on a trivial 1.1% grade.

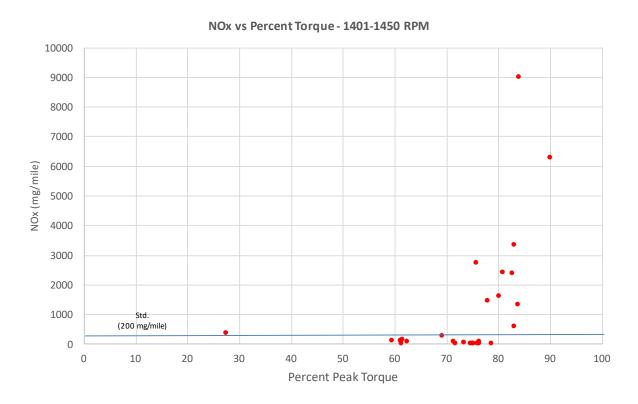
- 157. Engine timing is advanced to 1.611 from 0.499 degrees BTDC. EGR rates are reduced significantly from 19.8% to 10.7%, which SCR reduction is reduced from 90% to 61%. Again, the emission controls are deliberately derated under these conditions to permit excessive NOx emissions.
  - 158. The results for tests between 1351 and 1400 RPM are plotted below.



159. Here, a clear threshold of about 80% of peak power is observed, and the threshold emissions increase to values as high as nearly 10,000 mg/mile, or 50 times the standard. At the test weight of 9,000 pounds, these engine conditions would be experienced, for example, when the vehicle is traveling steady at 61 mph

and a road grade as modest as 2.9%. At the full combined weight rating of 24,000 pounds, the engine would expect to see the same conditions on trivial 1.1% grade.

- 160. Engine timing is advanced to 1.707 from 0.390 degrees BTDC. EGR rates are reduced significantly from 19.5% to 7.0%, while SCR reduction is reduced from 92% to 55%. Again, the emission control systems are derated to allow extreme emissions of NOx.
  - 161. The results for tests between 1401 and 1450 RPM are plotted below.

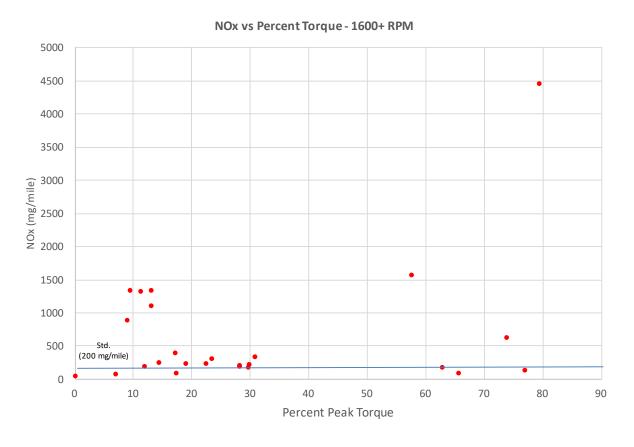


162. After crossing the 80% threshold, emissions are as high as 9000 mg/mile, or 45 times the standard.

Configuration	EGR (%)	SCR (% Reduction)	Engine Timing (degree crank angle)
Below 80%	20.6%	96%	0.305
Above 80%	9.7%	53%	1.791

163. Engine timing is advanced to 1.791 from 0.305 degrees BTDC. EGR rates are reduced significantly from 20.6% to 9.7%, while SCR reduction is reduced from 96% to 53%. Again, the emission control systems are programmed to significantly derate under these conditions, allowing extreme NOx emissions.

164. The results for tests above 1600 RPM are plotted below.



165. The threshold power at this engine speed is less clearly defined, with high emissions being generated both around 58% and 80% peak torque, though

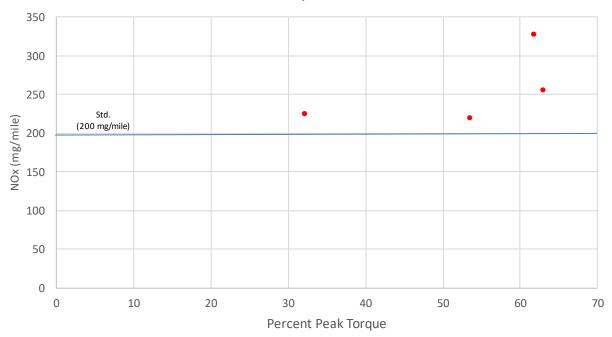
emissions increases are most dramatic at the 80% level. Emissions at power levels below these thresholds are much closer to the standard (though still largely above), with some notable exceptions at very low power levels during downhill operation (those high values near 10% peak engine power).

Configuration	EGR (%)	SCR (% Reduction)	Engine Timing (degree crank angle)
Below 80%	19.1%	84%	1.375
Above 80%	8.4%	43%	2.121

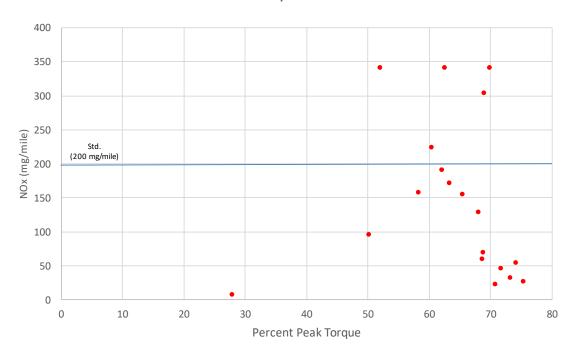
166. Engine timing is advanced to 2.121 from 1.375 degrees BTDC. EGR rates are reduced significantly from 19.1% to 8.4%, while SCR reduction is reduced from 84% to 43%. Again, the emission control systems are programmed to significantly derate under these conditions, allowing extreme NOx emissions.

167. The results for engine speeds between 1150–1200, 1251–1300, 1451–1500, and 1501–1550 RPM are plotted below. During test at these speeds, power levels required to trigger the precipitous increase in NOx emissions were not achieved. They are presented for sake of completeness. In tests at these engine speeds, the 70–80% peak power thresholds were simply not achieved. There are still a variety of cases where emissions do not meet the standard, though they are not orders of magnitude in excess of the standard, as is the case with power levels exceeding 70–80% of peak power.

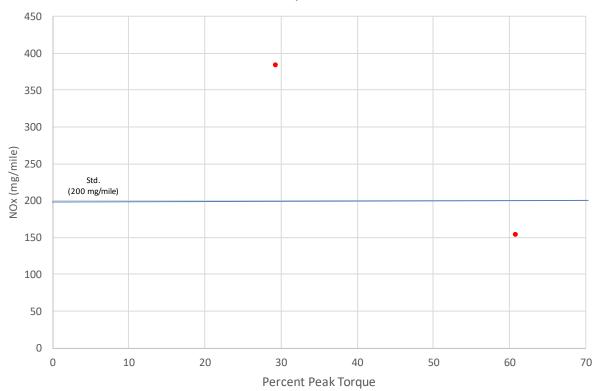
### NOx vs Percent Torque - 1150-1200 RPM



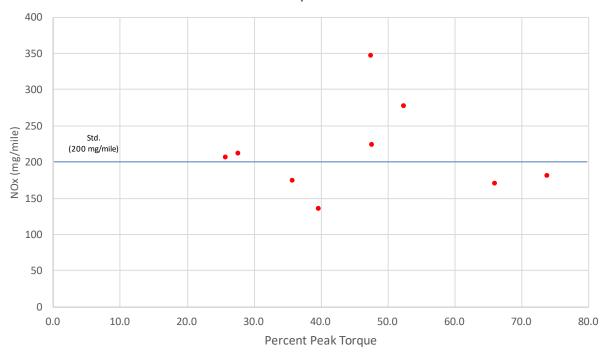
#### NOx vs Percent Torque - 1251-1300 RPM



### NOx vs Percent Torque - 1451-1500 RPM

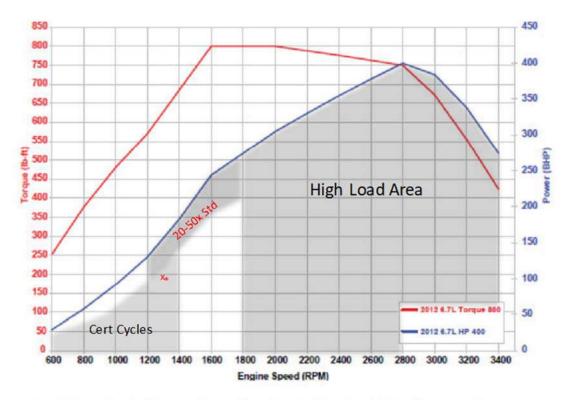


#### NOx vs Percent Torque - 1501-1550 RPM



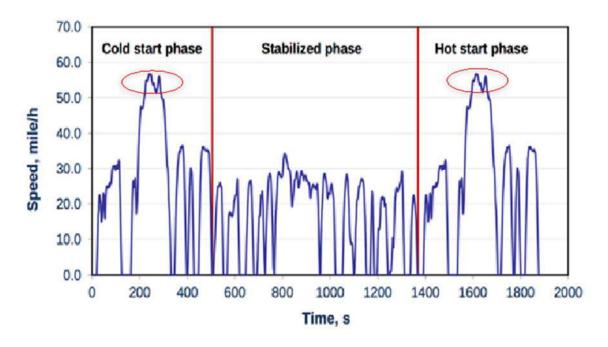
168. The data clearly demonstrates that the engine is consistently manipulated at power levels above 70–80% of maximum available power at a given engine speed to produce tailpipe NOx emissions that are orders of magnitude above the standard. These high NOx emissions are not only favorable for operation of the DPF, but also improve fuel economy and performance at those power levels.

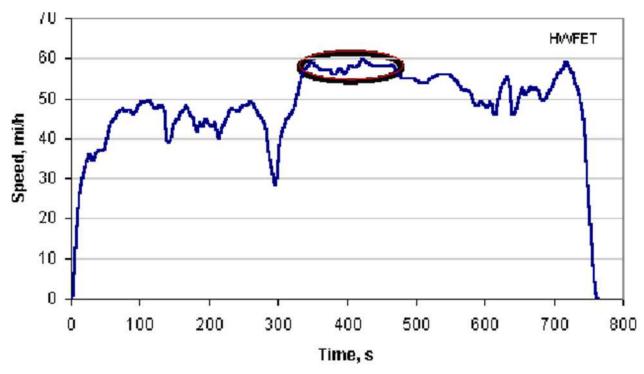
169. When mapped onto the torque and power diagram for the Power Stroke engine, Ford and Bosch have manipulated emissions such that at higher power levels where emissions are extreme. For operation at the tested vehicle weight of 9,000 pounds, the range of engine speeds from 1,200 to 1,600 RPM covers the vast majority of engine operation.



6.7L Power Stroke horsepower and torque graph, 2011 MY update - 2014 MY ratings

- 170. It is important to understand that the FTP-75 and HWFET certification cycles operate primarily in lower engine speed and torque conditions. Although there are brief excursions into higher power ranges during accelerations, steady operation in the conditions where emissions were found to be excessive does not occur on the certification cycles. Engine speeds for the certification cycles are found to be 600 RPM (idle speed) to 1400 RPM for both the FTP-75 and HWFET. The point on the FTP-75 that most closely approaches steady operation, which is approximately 1,300 RPM and 63% power. Similarly, the point on the HWFET that most closely approaches steady operation, is approximately 1275 RPM and 69% power. Critically, neither of these operating points are above the thresholds found in real-world testing where emissions increase dramatically. In other words, neither the FTP-75 nor the HWFET certification cycle tests conditions where, when driving in common real-world conditions, emissions are found to be extreme. On both cycles, the engine power is below the thresholds where the emission control systems are significantly derated.
- 171. The location on the FTP-75 where steady operation is noted below on the FTP-75 test trace. The same is marked for the HWFET cycle below.

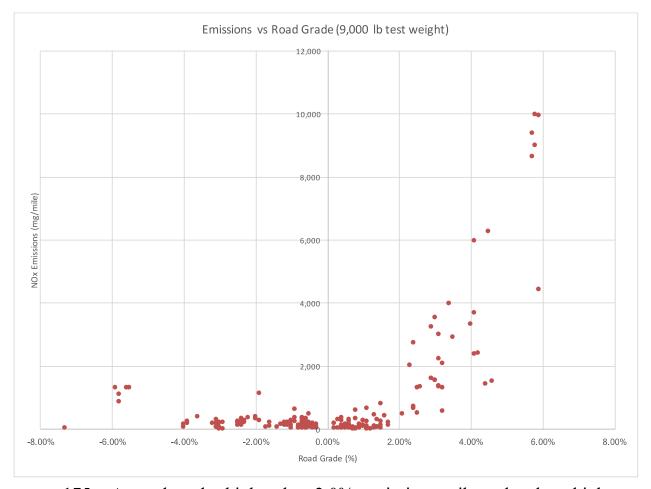




172. At the test weight of 9,000 pounds, it is simply not possible to test higher load and engine speed conditions at reasonable vehicle operating speeds, operation at these parts of the engine operation map occurs when the vehicle is

under heavy load. Given the vehicle is capable of hauling a full combined weight of 24,000 pounds, and is advertised as such, operation in the high power areas between 1200 and 1600 RPM as well as the area labeled "high load area" would occur on a regular basis. The tested weight configuration is less than 38% of the maximum weight the vehicle is rated to haul. This means that emissions in excess of standards occurs.

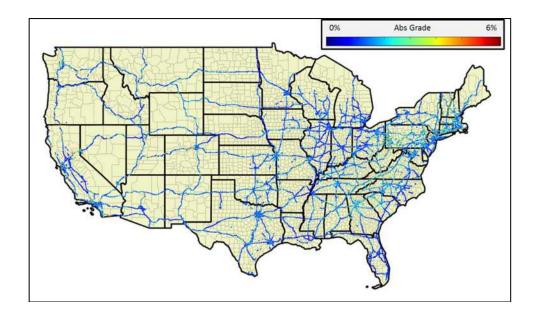
- 173. Clearly, when operating across a wide variety of the "best-in-class" torque conditions, Ford has tuned the engine so that NOx emissions are extreme. Emissions for all tests conducted at steady speeds between 40 and 60 mph at the 9,000 pound test weight are plotted below in terms of road grade. Uphill grades, as previously discussed, represent very common conditions where a vehicle might experience the engine power levels where NOx emissions become extreme.
- 174. It is interesting to note that emissions can also be quite high, on the order of 1,500 mg/mile, when traveling downhill as well. Although engine-out NOx emissions are very low at less significant downhill grades of 2 to 4%, essentially obviating the need for much SCR activity, timing is significantly advanced on steeper downhill grades and engine-out NOx emissions are quite high. Although the SCR system can be below its lightoff temperature at these steeper grades, the less steep grades demonstrate that NOx can be well controlled with engine timing and EGR.

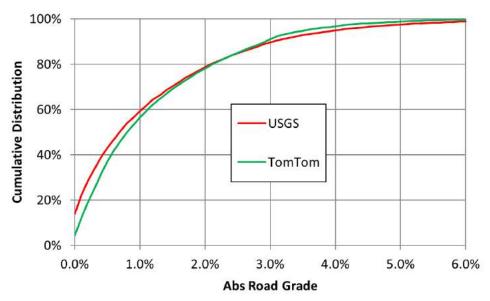


175. At road grades higher than 2.0%, emissions spike to levels as high as 15 times the standard and quickly increase as the road grade increases. Again, this plot is only relevant for a truck loaded to a relatively modest 9,000 pounds. With a full combined weight of 24,000 pounds hauling a fully loaded trailer, the threshold road grade where emissions start to become extreme would be 0.7%.

176. These conditions are commonly experienced on controlled access highways. The following plot shows the road grade distribution for 127,000 miles of controlled access highways in the United States.<sup>18</sup>

<sup>&</sup>lt;sup>18</sup> Wood, Eric, et. al. "EPA GHG Certification of Medium- and Heavy-Duty Vehicles: Development of Road Grade Profiles Representative of US Controlled



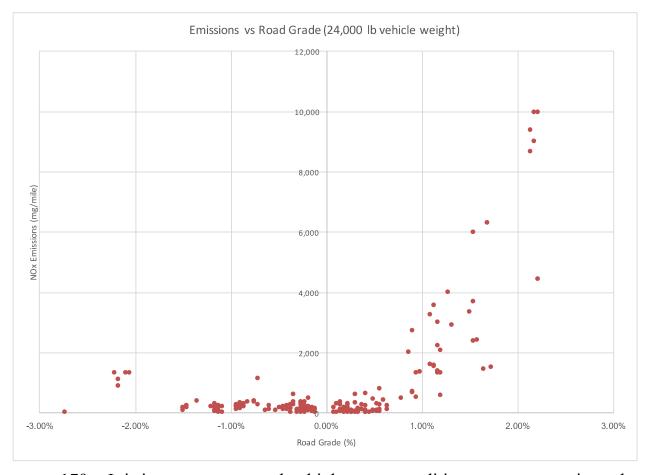


177. According to United States Geological Survey (USGS) data, 20% of controlled access highways have a road grade more than 2%; considering the severity of the NOx emissions under those conditions, the weighted average NOx

Access Highways," NREL Study under Contract DE-AC36-08GO28308, May 2015.

emissions for vehicles loaded to 9,000 pounds at steady conditions on such highways would be approximately 700 mg/mile, or 3.5 times the standard.

178. For a vehicle loaded to 24,000 pounds, a road grade of 0.7% would trigger the same power thresholds that result in extreme emissions on the 9,000 pound truck. Approximately 50% of controlled access highways in the United States have grades steeper than 0.7%. When the test results are plotted against the road grades that would produce equivalent power output as a 9,000 pound truck for a truck loaded to 24,000 pounds, extreme emissions would become even more commonplace. See the plot below. Using the USGS road grade distribution and NOx emission results, estimated weighted average emissions considering all road grades would be 2,400 mg/mile, some 12 times the standard. In reality, rolling resistance and drag would also increase on a vehicle loaded to that weight, placing even more load on the vehicle. If anything, these calculated road grade thresholds for the 24,000 pound case are conservative.



179. It is important to note that high power conditions are not experienced solely under steady speed driving conditions on road grades. They are also experienced during more aggressive accelerations, when the vehicle is operating in non-steady conditions with more weight, or any combination of the two. Put simply, accelerating more quickly or hauling heavy loads requires the engine to make more and more use of those high-power operating conditions that have been demonstrated to produce extreme NOx emissions. For a vehicle designed to operate at loads as high as 24,000 pounds, the tested configuration of 9,000 pounds in stop-and-go operation requires relatively low levels of power and torque, and yet emissions are still well above the standard.

#### 180. A defeat device is defined as follows:

Defeat device means an auxiliary emission control device (AECD) that reduces the effectiveness of the emission control system under conditions which may <u>reasonably</u> be expected to be encountered in normal vehicle operation and use, unless:

- (1) Such conditions are substantially included in the Federal emission test procedure;
- (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident;
- (3) The AECD does not go beyond the requirements of engine starting; or
- (4) The AECD applies only for **emergency vehicles** and the need is justified in terms of preventing the vehicle from losing speed, torque, or power due to abnormal conditions of the emission control system, or in terms of preventing such abnormal conditions from occurring, during operation related to emergency response. Examples of such abnormal conditions may include excessive exhaust backpressure from an overloaded particulate trap, and running out of diesel exhaust fluid for engines that rely on urea-based selective catalytic reduction.

# a. Such Conditions Substantially Included on the Test Procedure? – NO

181. The steady load conditions presented above where excessive emissions are observed are not substantially captured by either of the two certification test cycles.

# b. Conditions reasonably expected to be encountered? – YES

182. These high load conditions are clearly "expected to be encountered in normal vehicle operation and use." These vehicles are designed to carry heavy

loads and operate on road grades, as advertised by Ford. In fact, diesel engines are used specifically because they can provide high torque and power levels for heavy loads, and that is one of the primary reasons a truck owner would opt for a diesel engine instead of a gasoline engine on a truck. Even at the very modest test weight of 9,000 pounds (compared to the designed combined weight rating of 24,000 pounds), such high power conditions that produce excessive emissions are frequently encountered.

## c. Justified to protect the engine? – NO

- 183. Once the torque thresholds for each engine speed are exceeded, the emission controls systems are massively altered. Although there might be justification for small increases in NOx at these higher loads with minor changes to the engine timing and EGR systems, the tests show behavior that is much more binary and extreme: either very well behaved or for all practical purposes turned off.
- 184. Furthermore, it should be noted that the manufacturer sets the maximum power rating for each engine speed and this limit is defined and controlled by the vehicle's ECM. There is nothing forcing the manufacturer to set the maximum available power at a certain value from a technical standpoint if those operating points cannot produce the desired emissions performance.

- 185. Therefore, this behavior cannot be justified in terms of protecting the engine. The observed excessive emissions are therefore a result of a defeat device.
  - 5. The test vehicle is representative of all Super Duty vehicles.
- 186. Plaintiffs allege that the following Ford models are affected by the unlawful, unfair, deceptive, and otherwise defective emission controls: 2011–2017 F-250 and F-350 Super Duty diesel trucks.
- 187. Plaintiffs did not test each model to derive plausible allegations that each Polluting Vehicle violates U.S. and CARB emissions standards and produces emissions beyond those that a reasonable consumer would have expected when he or she purchased their vehicle. Plaintiffs did not need to. As set forth in more detail below, all of the models share either identical or very similar engines and emissions systems, allowing Plaintiffs' experts to plausibly conclude that all Polluting Vehicles violate U.S. and CARB standards and the expectations of a reasonable consumer.
- 188. Ford itself grouped the engine used for both the F-250 and F-350 into the same application and test group. CARB and EPA certified the engines in the test group, which means, from an emissions standpoint, the engines are considered identical.
- 189. All variants of the Super Duty sold in the United States are well represented by both the Plaintiffs' list of vehicles and Plaintiffs' test vehicle since

Ford did not change the engine in any significant way with respect to diesel emissions between 2011 and 2017; all vehicles employ the same generation of Power Stroke engine.

190. Plaintiffs' experts also conducted additional research into the technical literature to understand the various configurations of Power Stroke engines sold between 2011 and 2017. The literature provides some insight into the architecture of the variants of the engines. In all cases, the engines are shown to have much more commonality than not, leading Plaintiffs' experts to conclude that there is a strong basis for sufficient similarity or "sameness" to warrant inclusion on the list of Polluting Vehicles. The vehicles are either equivalent from an emissions standpoint to the test vehicles or use the same core technologies and engine platforms as the test vehicles.

### F. The Bosch EDC17

191. All modern engines are integrated with sophisticated computer components to manage the vehicle's operation, such as an electronic diesel control. Bosch GmbH tested, manufactured, and sold the EDC system used by Volkswagen, FCA, Mercedes, and General Motors. This system is more formally

referred to as the Electronic Diesel Control Unit 17 ("EDC Unit 17" or "ED17"). Upon its introduction, EDC Unit 17 was publicly touted by Bosch as follows:<sup>19</sup>

EDC17 . . . controls every parameter that is important for effective, low-emission combustion.

Because the computing power and functional scope of the new EDC17 can be adapted to match particular requirements, it can be used very flexibly in any vehicle segment on all the world's markets. In addition to controlling the precise timing and quantity of injection, exhaust gas recirculation, and manifold pressure regulation, it also offers a large number of options such as the control of particulate filters or systems for reducing nitrogen oxides. The Bosch EDC17 determines the injection parameters for each cylinder, making specific adaptations if necessary. This improves the precision of injection throughout the vehicle's entire service life. The system therefore makes an important contribution to observing future exhaust gas emission limits.

- 192. Bosch worked with each vehicle manufacturer that utilized EDC Unit 17 to create a unique set of specifications and software code to manage the vehicles' engine operation.
- 193. Bosch's EDC Unit 17 controls emissions by periodically reading sensor values, evaluating a control function, and controlling actuators based on the control signal.<sup>20</sup> Sensor readings include crankshaft position, air pressure, air temperature, air mass, fuel temperature, oil temperature, coolant temperature,

<sup>&</sup>lt;sup>19</sup> See Exhibit 13, Bosch Press Release, *The brain of diesel injection: New Bosch EDC17 engine management system* (Feb. 28, 2006), <a href="http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en">http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en</a>.

<sup>&</sup>lt;sup>20</sup> Moritz Contag *et al.*, How They Did It: An Analysis of Emission Defeat Devices in Modern Automobiles, p.4 (2017).

vehicle speed, exhaust oxygen content, as well as driver inputs such as accelerator pedal position, brake pedal position, cruise control setting, and selected gear.

Based on sensor input, EDC17 controls and influences the fuel combustion process including, in particular, fuel injection timing, which affects engine power, fuel consumption, and the composition of the exhaust gas.<sup>21</sup>

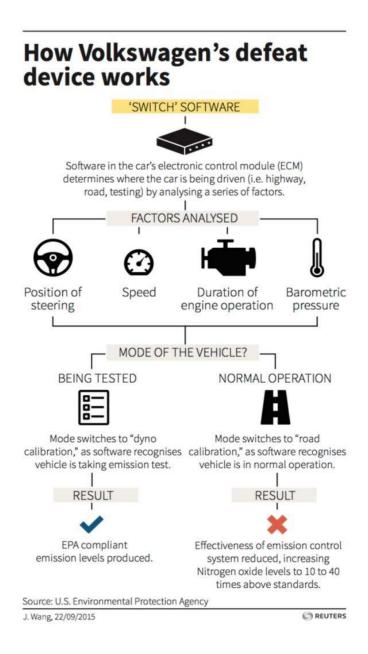
- 194. All Bosch ECUs, including the EDC17, run on complex, highly proprietary engine management software over which Bosch exerts near-total control. In fact, the software is typically locked to prevent customers, like Ford, from making significant changes on their own. Accordingly, both the design and implementation are interactive processes, requiring Bosch's close collaboration with the automaker from beginning to end.
- 195. With respect to the Polluting Vehicles, the EDC 17 was used surreptitiously to evade emissions regulations. Bosch and Ford worked together to develop and implement a specific set of software algorithms for implementation in the Polluting Vehicles, including algorithms to adjust fuel levels, exhaust gas recirculation, air pressure levels, and urea injection rates in vehicles equipped with SCR systems.
- 196. Bosch and Ford worked together to develop and implement a specific set of software algorithms for implementation in the Polluting Vehicles, which

<sup>&</sup>lt;sup>21</sup> *Id*.

enabled Ford to adjust fuel levels, exhaust gas recirculation, air pressure levels, and even urea injection rates (for applicable vehicles).<sup>22</sup> When carmakers test their vehicles against EPA emission standards, they place their vehicles on dynamometers (large rollers) and then perform a series of specific maneuvers prescribed by federal regulations. Bosch's EDC Unit 17 gave Volkswagen, General Motors, Ford and other manufacturers the power to detect test scenarios by monitoring vehicle speed, acceleration, engine operation, air pressure, and even the position of the steering wheel. When the EDC Unit 17's detection algorithm detected that the vehicle was on a dynamometer (and undergoing an emission test), additional software code within the EDC Unit 17 downgraded the engine's power and performance and upgraded the emission control systems' performance by switching to a "dyno calibration" to cause a subsequent reduction in emissions to legal levels. Once the EDC Unit 17 detected that the emission test was complete, the EDC Unit would then enable a different "road calibration" that caused the engine to return to full power while reducing the emission control systems' performance, and consequently caused the vehicle to spew the full amount of

<sup>&</sup>lt;sup>22</sup> See, e.g., Exhibit 14, Engine management, Bosch Auto Parts, <a href="http://de.bosch-automotive.com/en/parts\_and\_accessories/motor\_and\_sytems/diesel/engine\_management\_2/engine\_control\_unit\_1.">http://de.bosch-automotive.com/en/parts\_and\_accessories/motor\_and\_sytems/diesel/engine\_management\_2/engine\_control\_unit\_1.</a>

illegal NOx emissions out on the road in certain conditions.<sup>23</sup> This process is illustrated in the following diagram, applicable to Ford as well:



197. This workaround was illegal. The Clean Air Act expressly prohibits defeat devices, defined as any auxiliary emission control device "that reduces the

<sup>&</sup>lt;sup>23</sup> Exhibit 15, Russell Hotten, *Volkswagen: The scandal explained*, BBC (Dec. 10, 2015), http://www.bbc.com/news/business-34324772.

effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use."

40 C.F.R. § 86.1803-01; see also id. § 86.1809-10 ("No new light-duty vehicle, light-duty truck, medium-duty passenger vehicle, or complete heavy-duty vehicle shall be equipped with a defeat device."). Moreover, the Clean Air Act prohibits the sale of components used as defeat devices "where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." 42 U.S.C. § 7522(a)(3). Finally, in order to obtain a certificate of compliance (COC), automakers must submit an application that lists all auxiliary emission control devices installed in the vehicle, a justification for each, and an explanation of why the control device is not a defeat device.

- 198. Thus, in order to obtain the COCs necessary to sell their vehicles, Ford did not disclose, and affirmatively concealed from government regulators, the presence of the test-detecting and performance-altering software code that it developed with Bosch, thus making that software an illegal defeat device. In other words, Ford, working closely with Bosch, lied to the government, its customers, its dealers, and the public at large.
- 199. Because the COCs were fraudulently obtained, and because the Polluting Vehicles did not conform "in all material respects" to the specifications provided in the COC applications, the Polluting Vehicles were never covered by a

valid COC, and thus were never legal for sale, nor were they EPA- and/or CARB-compliant as represented. Ford and Bosch hid these facts from the EPA, CARB and other regulators, its dealers, and consumers, and it continued to sell and lease the Polluting Vehicles to the driving public despite their illegality and with the complicity of Bosch.

- 200. Ford's illegal workaround was enabled by its close partnership with Bosch, which enjoyed a sizable portion of its annual revenue from manufacturing parts used in Ford's and other manufacturers' diesel vehicles.<sup>24</sup> Bosch was well aware that Ford was using its emission control components as a defeat device and, in fact, worked with Ford to develop the software algorithm specifically tailored for the Polluting Vehicles.
- 201. Because the COCs were fraudulently obtained, the Polluting Vehicles were never covered by valid COCs and thus were never offered legally for sale. Ford hid these facts from the EPA, CARB and other state regulators, and consumers, and it continued to sell and lease the Polluting Vehicles despite their illegality and with the complicity of Bosch.

<sup>&</sup>lt;sup>24</sup> Approximately 50,000 of Bosch's 375,000 employees worked in the diesel technology operations branch of Bosch, and Volkswagen was the biggest diesel manufacturer in the world. *See* Exhibit 16, *Bosch probes whether its staff helped VW's emissions rigging*, Automotive News (Jan. 27, 2016), <a href="http://www.autonews.com/article/20160127/COPY01/301279955/bosch-probes-whether-its-staff-helped-vws-emissions-rigging">http://www.autonews.com/article/20160127/COPY01/301279955/bosch-probes-whether-its-staff-helped-vws-emissions-rigging</a>.

- G. Bosch played a critical role in the defeat device scheme in many diesel vehicles in the United States, giving rise to a strong inference that Bosch played a key role in implementing the Ford emission strategy.
- 202. Although this case is not about Volkswagen, Bosch's history with Volkswagen provides background and support for the plausibility of its participation in the RICO enterprise alleged herein, of which Bosch and Ford were participants. On information and belief, Plaintiffs allege that the same level of coordination between Bosch and Volkswagen also occurred between Bosch and Ford.
  - 1. Volkswagen and Bosch conspire to develop the illegal defeat device.
- 203. Bosch tightly controlled development of the control units in the Polluting Vehicles and actively participated in the development of the defeat device.
- 204. As discussed above, Bosch introduced a new generation of diesel ECUs for Volkswagen.
- 205. A February 28, 2006 Bosch press release introduced the "New Bosch EDC17 engine management system" as the "brain of diesel injection" which "controls every parameter that is important for effective, low-emission combustion." The EDC17 offered "[e]ffective control of combustion" and a

"[c]oncept tailored for all vehicle classes and markets." In the press release, Bosch touted the EDC17 as follows:<sup>25</sup>

### **EDC17: Ready for future demands**

Because the computing power and functional scope of the new EDC17 can be adapted to match particular requirements, it can be used very flexibly in any vehicle segment on all the world's markets. In addition to controlling the precise timing and quantity of injection, exhaust gas recirculation, and manifold pressure regulation, it also offers a large number of options such as the control of particulate filters or systems for reducing nitrogen oxides. The Bosch EDC17 determines the injection parameters for each cylinder, making specific adaptations if necessary. This improves the precision of injection throughout the vehicle's entire service life. The system therefore makes an important contribution to observing future exhaust gas emission limits.

- 206. Bosch and Volkswagen worked together closely to modify the software and to create specifications for each Volkswagen vehicle model. Indeed, customizing a road-ready ECU is an intensive three- to five-year endeavor involving a full-time Bosch presence at an automaker's facility. Such was the case with Ford as well.
- 207. All Bosch ECUs, including the EDC17, run on complex, highly proprietary engine management software over which Bosch exerts nearly total control. In fact, the software is typically locked to prevent customers, like Volkswagen and Ford, from making significant changes on their own.

<sup>&</sup>lt;sup>25</sup> See Exhibit 13, Bosch press release, *The brain of diesel injection: New Bosch EDC17 engine management system* (Feb. 28, 2006), <a href="http://www.bosch-presse.de/">http://www.bosch-presse.de/</a> presseforum/details.htm?txtID=2603&locale=en.

- 208. Bosch's security measures further confirm that its customers cannot make significant changes to Bosch software without Bosch involvement. Bosch boasts that its security modules protect vehicle systems against unauthorized access in every operating phase, meaning that no alteration could have been made without either a breach of that security—and no such claims have been advanced—or Bosch's knowing participation.<sup>26</sup>
- 209. Unsurprisingly, then, at least one car company engineer has confirmed that Bosch maintains absolute control over its software as part of its regular business practices:<sup>27</sup>

I've had many arguments with Bosch, and they certainly own the dataset software and let their customers tune the curves. Before each dataset is released it goes back to Bosch for its own validation.

Bosch is involved in all the development we ever do. They insist on being present at all our physical tests and they log all their own data, so someone somewhere at Bosch will have known what was going on.

All software routines have to go through the software verification of Bosch, and they have hundreds of milestones of verification, that's the structure . . . .

The car company is *never* entitled by Bosch to do something on their own.

<sup>&</sup>lt;sup>26</sup> Exhibit 17, *Reliable Protection for ECUs*, ESCRYPT (May 12, 2016), https://www.escrypt.com/en/news-events/protection-for-ecus.

<sup>&</sup>lt;sup>27</sup> Exhibit 18, Michael Taylor, *EPA Investigating Bosch over VW Diesel Cheater Software*, Car and Driver (Nov. 23, 2015), <a href="http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/">http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/</a>.

- 210. Thus, Bosch GmbH and Bosch LLC cannot convincingly argue that the development of the Volkswagen defeat device was the work of a small group of rogue engineers.
- 211. In fact, Volkswagen's and Bosch's work on the EDC17 reflected a highly unusual degree of coordination. It was a massive project that required the work of numerous Bosch coders for a period of more than ten years, or perhaps more.<sup>28</sup> Although Bosch publicly introduced the EDC17 in 2006, it had started to develop the engine management system years before.<sup>29</sup>
- 212. In fact, Bosch was in on the secret and knew that Volkswagen was using Bosch's software algorithm as an "on/off" switch for emission controls when the vehicles were undergoing testing. As noted above, it has been said the decision to cheat was an "open secret" at Volkswagen.<sup>30</sup> It was an "open secret" at Bosch as well.

<sup>&</sup>lt;sup>28</sup> Approximately 50,000 of Bosch's 375,000 employees worked in the diesel technology operations branch of Bosch, and Volkswagen was the biggest diesel manufacturer in the world. *See* Exhibit 16, *Bosch Probes Whether Its Staff Helped VW's Emissions Rigging*, Automotive News (Jan. 27, 2016), <a href="http://www.autonews.com/article/20160127/COPY01/301279955/bosch-probes-whether-its-staff-helped-vws-emissions-rigging">http://www.autonews.com/article/20160127/COPY01/301279955/bosch-probes-whether-its-staff-helped-vws-emissions-rigging</a>.

<sup>&</sup>lt;sup>29</sup> Exhibit 13, Bosch press release, *The brain of diesel injection: New Bosch EDC17 engine management system* (Feb. 28, 2006), <a href="http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en">http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en</a>.

<sup>&</sup>lt;sup>30</sup> Exhibit 19, Georgina Prodham, *Volkswagen probe finds manipulation was open secret in department*, Reuters (Jan. 23, 2016), <a href="http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7">http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7</a>. *See also* Exhibit 20, Jay Ramey, *VW chairman Poetsch: Company 'tolerated breaches of rules'*, Autoweek (Dec. 10, 2015), <a href="http://autoweek.com/article/vw-diesel-scandal/vw-diesel-s

213. Volkswagen and Bosch personnel employed code language for the defeat device, referring to it as the "acoustic function" (in German, "akustikfunktion"). As described above, the roots of the "akustikfunktion"—and likely the cheating—can be traced back to the late 1990s when Audi devised software called the "akustikfunktion" that could switch off certain functions when the vehicle was in a test mode.<sup>31</sup> The "akustik" term is derived from the function's ability to modify the noise and vibration produced by the engine. News articles report that, in 2006, Volkswagen further developed this "akustikfunktion" for the affected vehicles.<sup>32</sup>

<sup>&</sup>lt;u>chairman-poetsch-company-tolerated-breaches-rules</u> (it was necessary for the "EA 189 engine to pass U.S. diesel emissions limits within the budget and time frame allotted").

<sup>&</sup>lt;sup>31</sup> Exhibit 21, Martin Murphy, *Dieselgate's Roots Stretch Back to Audi*, Handelsblatt Global (Apr. 19, 2016), <a href="https://global.handelsblatt.com/edition/413/ressort/companies-markets/article/dieselgates-roots-stretch-back-to-audi?ref=MTI 50DU1">https://global.handelsblatt.com/edition/413/ressort/companies-markets/article/dieselgates-roots-stretch-back-to-audi?ref=MTI 50DU1</a>.

<sup>32</sup> Exhibit 19, Georgina Prodham, *Volkswagen probe finds manipulation was open secret in department*, Reuters (Jan. 23, 2016), <a href="http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7">http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7</a>. Volkswagen Group Chairman Hans Dieter Poetsch explained that a small group of engineers and managers was involved in the creation of the manipulating software. *See* Exhibit 20, Jay Ramey, *VW chairman Poetsch: Company 'tolerated breaches of rules'*, Autoweek (Dec. 10, 2015), <a href="http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules">http://www.diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules</a>. *See also* Exhibit 15, Russell Hotten, *Volkswagen: The scandal explained*, BBC (Dec. 10, 2015), <a href="http://www.bbc.com/news/business-34324772">http://www.bbc.com/news/business-34324772</a>; Exhibit 22, Matt Burt, *VW emissions scandal: how Volkswagen's 'defeat device' works*, Autocar (Sept. 23, 2015), <a href="http://www.autocar.co.uk/car-news/industry/vw-emissions-scandal-how-volkswagens-defeat-device-works">http://www.autocar.co.uk/car-news/industry/vw-emissions-scandal-how-volkswagens-defeat-device-works</a>.

- 214. In sum, Bosch GmbH worked hand-in-glove with Volkswagen to develop and maintain the akustikfunktion/defeat device. On information and belief, it did so with Ford as well.
  - 2. Volkswagen and Bosch conspire to conceal the illegal "akustikfunktion."
- 215. By 2007, and likely earlier, Bosch GmbH was critical not only in developing the "akustikfunktion" but also in concealing it.
- 216. Bosch GmbH was concerned about getting caught participating in the defeat device fraud. As reported in a German newspaper, *Bild am Sonntag*, and a French publication, a Volkswagen internal inquiry found that in 2007, Bosch GmbH warned Volkswagen by letter that using the emissions-altering software in production vehicles would constitute an "offense."<sup>33</sup>
  - 3. Volkswagen and Bosch conspire in the United States and Germany to elude U.S. regulators who regulated not just Volkswagen diesels but all diesels.
- 217. The purpose of the defeat device was to evade stringent U.S. emissions standards. Once Bosch GmbH, Bosch LLC, and Volkswagen perfected the defeat device, therefore, their attention turned to deceiving U.S. regulators not

<sup>&</sup>lt;sup>33</sup> Exhibit 23, *Bosch warned VW about illegal software use in diesel cars*, *report says*, Automotive News (Sept. 27, 2015), <a href="http://www.autonews.com/article/20150927/COPY01/309279989/bosch-warned-vw-about-illegal-software-use-in-diesel-cars-report-says">http://www.autonews.com/article/20150927/COPY01/309279989/bosch-warned-vw-about-illegal-software-use-in-diesel-cars-report-says</a>; Exhibit 24, *VW Scandal: Company Warned over Test Cheating Years Ago*, BBC (Sept. 27, 2015), <a href="http://www.bbc.com/news/business-34373637">http://www.bbc.com/news/business-34373637</a>.

just for the benefit of Volkswagen but also for the benefit of Ford, Mercedes, General Motors, and FCA.

- 218. Bosch's North American subsidiary, Defendant Robert Bosch LLC, was also part of and essential to the fraud. Bosch LLC worked closely with Bosch GmbH and Volkswagen in the United States and in Germany to ensure that the non-compliant affected vehicles passed U.S. emissions tests. Bosch LLC employees frequently communicated with U.S. regulators and actively worked to ensure the affected vehicles were approved by regulators.
- 219. Employees of Bosch LLC, Bosch GmbH, and IAV provided specific information to U.S. regulators about how Volkswagen's vehicles functioned and unambiguously stated that the vehicles met emissions standards. Bosch LLC regularly communicated to its colleagues and clients in Germany about ways to deflect and diffuse questions from U.S. regulators about the affected vehicles—particularly CARB.
  - 4. Bosch keeps Volkswagen's secret safe and pushes "clean" diesel in the United States as a concept applicable to all diesel car manufacturers.
- 220. During the time of its lobby efforts, Bosch LLC and Bosch GmbH were each aware that Ford, General Motors, Volkswagen, Audi, Porsche, FCA, and Mercedes could not meet emissions requirements without turning down or derating emission controls. Bosch not only kept Volkswagen's dirty secret safe, it went a

step further and actively lobbied lawmakers to push "clean diesel" in the United States, including making affected vehicles available for regulators to drive.

- 221. As early as 2004, Bosch announced a push to convince U.S. automakers that its diesel technology could meet tougher 2007 U.S. emission standards.<sup>34</sup> Its efforts ended up being a multi-year, multi-million dollar effort involving key players from both Robert Bosch GmbH in Germany and Bosch LLC in the United States.
- 222. Bosch's promotion of diesel technology specifically targeted the United States. For example, Bosch put on "California Diesel Days"<sup>35</sup> and "SAE World Congress in Detroit."<sup>36</sup> In 2008, Bosch LLC and Volkswagen America cosponsored the "Future Motion Made in Germany-Second Symposium on Modern Drive Technologies" at the German Embassy in Washington, D.C., with the aim of providing a venue for "stakeholders to gain insight into the latest technology trends and engage in a vital dialogue with industry leaders and policymakers."<sup>37</sup>

<sup>&</sup>lt;sup>34</sup> Exhibit 25, Edmund Chew, *Bosch boosts US diesel lobbying*, Autonews (Mar. 8, 2004), <a href="http://www.autonews.com/article/20040308/SUB/403080876/bosch-boosts-us-diesel-lobbying">http://www.autonews.com/article/20040308/SUB/403080876/bosch-boosts-us-diesel-lobbying</a>.

<sup>&</sup>lt;sup>35</sup> Exhibit 26, *Bosch drives clean diesel in California*, Bosch, <a href="http://www.bosch.us/content/language1/html/734\_4066.htm?section=28799C0E86C147799E02226E942307F2">http://www.bosch.us/content/language1/html/734\_4066.htm?section=28799C0E86C147799E02226E942307F2</a>.

<sup>&</sup>lt;sup>36</sup> See, e.g., Exhibit 27, Bosch Brings Innovation, Green Technology to SAE 2009 World Congress, Bosch, <a href="http://www.bosch.us/content/language1/html/734">http://www.bosch.us/content/language1/html/734</a> 7432.htm?section=CDAF31A468D9483198ED8577060384B3.

<sup>&</sup>lt;sup>37</sup> Exhibit 28, *Bosch: Clean Diesel is Key Part of Future Technology Mix*, Bosch, <a href="http://us.bosch-press.com/tbwebdb/bosch-usa/en-US/PressText.cfm">http://us.bosch-press.com/tbwebdb/bosch-usa/en-US/PressText.cfm</a>?

- 223. Bosch LLC hosted multi-day conferences open to many regulators and legislators and held private meetings with regulators in which it proclaimed extensive knowledge of the specifics of Volkswagen technology, including calibrations necessary for the affected vehicles to comply with emissions regulations.
- 224. In April 2009, Bosch LLC organized and hosted a two-day "California Diesel Days" event in Sacramento, California. Bosch invited a roster of lawmakers, journalists, executives, regulators, and NGOs<sup>38</sup> with the aim of changing perceptions of diesel from "dirty" to "clean." The event featured affected vehicles as ambassadors of "clean diesel" technology, including a 2009 Volkswagen Jetta "green car." The stated goals were to "build support for light-duty diesel as a viable solution for achieving California's petroleum and emission reduction objectives."
- 225. In 2009, Bosch also became a founding member of the U.S. Coalition for Advanced Diesel Cars.<sup>39</sup> One of this advocacy group's purposes included

<sup>&</sup>lt;u>CFID=60452038&CFTOKEN=9c778a2564be2c9b-56CC21B6-96AB-5F79-32445B13EC121DBE&nh=00&Search=0&id=364.</u>

<sup>&</sup>lt;sup>38</sup> Exhibit 26, *Bosch drives clean diesel in California*, Bosch, <a href="http://www.bosch.us/content/language1/html/734\_4066.htm?section=28799C0E">http://www.bosch.us/content/language1/html/734\_4066.htm?section=28799C0E</a> <a href="https://see also Exhibit 29">86C147799E02226E942307F2</a>; see also Exhibit 29, California Diesel Days, The U.S. Coalition for Advanced Diesel Cars, <a href="http://www.californiadieseldays.com/">http://www.californiadieseldays.com/</a>.

<sup>&</sup>lt;sup>39</sup> Exhibit 30, Chrissie Thompson, *New Coalition Aims To Promote Diesel Cars*, Automotive News (Feb. 2, 2009), <a href="http://www.autonews.com/article/20090202/OEM06/302029728/new-coalition-aims-to-promote-diesel-cars">http://www.autonews.com/article/20090202/OEM06/302029728/new-coalition-aims-to-promote-diesel-cars</a>.

"promoting the energy efficiency and environmental benefits of advanced clean diesel technology for passenger vehicles in the U.S. marketplace." This group lobbies Congress, U.S. regulators, and CARB in connection with rules affecting "clean diesel" technology. 41

- 226. In 2010, Bosch sponsored the Virginia International Raceway with the support of the 2010 Volkswagen Jetta TDI Cup Series. This event included TDI vehicles featuring Bosch technology.<sup>42</sup>
- 227. In 2012, Audi, BMW, Bosch, Daimler, Porsche, and Volkswagen joined to form The Clearly Better Diesel initiative.<sup>43</sup> The initiative was announced in Berlin by the German Association of the Automotive Industry. Its stated goal was to promote the sale of clean diesel vehicles in the United States. The initiative's slogan was "Clean Diesel. Clearly Better."

<sup>&</sup>lt;sup>40</sup> Exhibit 31, *About the Coalition*, The U.S. Coalition for Advanced Diesel Cars, <a href="http://cleandieseldelivers.com/about/">http://cleandieseldelivers.com/about/</a>.

<sup>&</sup>lt;sup>41</sup> *Id. See also*, *e.g.*, Exhibit 32, Letter to Chairman Mary Nichols and CARB concerning a statement made about diesel technology (Jan. 8, 2016), available at <a href="http://cleandieseldelivers.com/media/Mary-Nichols-Letter-01082016.pdf">http://cleandieseldelivers.com/media/Mary-Nichols-Letter-01082016.pdf</a>.

<sup>&</sup>lt;sup>42</sup> Exhibit 33, *Volkswagen Jetta TDI Cup Drivers Take to the Track for the First Time in 2010 at VIR*, Volkswagen of America, Inc. (April 23, 2010), available at <a href="http://www.prnewswire.com/news-releases/volkswagen-jetta-tdi-cup-drivers-take-to-the-track-for-the-first-time-in-2010-at-vir-91985604.html">http://www.prnewswire.com/news-releases/volkswagen-jetta-tdi-cup-drivers-take-to-the-first-time-in-2010-at-vir-91985604.html</a>.

<sup>&</sup>lt;sup>43</sup> Exhibit 34, "Clean Diesel Clearly Better" Campaign for Clean Diesel Cars Welcomed, Diesel Technology Forum (Dec. 12, 2012), available at <a href="http://www.prnewswire.com/news-releases/clean-diesel-clearly-better-campaign-for-clean-diesel-cars-welcomed-183261432.html">http://www.prnewswire.com/news-releases/clean-diesel-clearly-better-campaign-for-clean-diesel-cars-welcomed-183261432.html</a>.

- 228. In its efforts to promote "clean diesel," including the affected vehicles, Bosch GmbH acted on behalf of its global group.
  - 5. Bosch also made the EDC17 found in FCA vehicles that pollute excessively.
- 229. To appeal to environmentally conscious consumers, FCA *vigorously* markets its "EcoDiesel" vehicles as "clean diesel" with ultra-low emissions, high fuel economy, and powerful torque and towing capacity. FCA calls its EcoDiesel "ultra clean," "emissions compliant," and claims that "*no NOx*" exits the tailpipe. FCA charges a premium for EcoDiesel-equipped vehicles. For example, selecting the 3.0-liter EcoDiesel engine for the 2016 Dodge Ram 1500 Laramie adds \$4,770 to the purchase price. And the 2016 Jeep Grand Cherokee Overland EcoDiesel costs \$4,500 more than its gasoline counterpart.
- 230. These representations are deceptive and false. FCA programmed its EcoDiesel vehicles to significantly reduce the effectiveness of the NOx reduction systems during real-world driving conditions. The EPA has determined that the affected vehicles contain defeat devices. After a lawsuit had already been filed by Plaintiffs' counsel in this case, on January 12, 2017, the EPA issued a Notice of Violation against FCA because FCA "failed to disclose Auxiliary Emission

Control Devices (AECDs)" in the affected vehicles.<sup>44</sup> The EPA identified eight specific devices that cause the vehicle to perform effectively when being tested for compliance and then reduce the effectiveness of the emission control system during normal operation and use.

- 231. "Once again," said CARB Chair Mary D. Nichols about FCA's cheating, "a major automaker made the business decision to skirt the rules and got caught."
- 232. The same experts that tested the Super Duty's performance did on-road testing of the FCA vehicles and confirmed that FCA's so-called EcoDiesel vehicles produced NOx emissions at an average of 222 mg/mile in city driving (four times the FTP standard of 50 mg/mile) and 353 mg/mile in highway driving (five times higher than the U.S. highway standard of 70 mg/mile). In many instances, NOx values were in excess of 1,600 mg/mile, more than 20 times the standards. This testing uncovered many of the defeat devices listed in the EPA notice of violation ahead of EPA's announcement.
  - 233. Bosch made the EDC17 for the polluting FCA vehicles.

<sup>&</sup>lt;sup>44</sup> Exhibit 35, EPA's January 12, 2017 Notice of Violation to FCA, available at <a href="https://www.epa.gov/sites/production/files/2017-01/documents/fca-caa-nov-2017-01-12.pdf">https://www.epa.gov/sites/production/files/2017-01/documents/fca-caa-nov-2017-01-12.pdf</a>.

<sup>&</sup>lt;sup>45</sup> Exhibit 36, EPA News Release, *EPA Notifies Fiat Chrysler of Clean Air Act Violations* (Jan.12, 2017), available at <a href="https://www.epa.gov/newsreleases/epa-notifies-fiat-chrysler-clean-air-act-violations">https://www.epa.gov/newsreleases/epa-notifies-fiat-chrysler-clean-air-act-violations</a>.

- 6. Bosch GmbH also made the EDC17 found in polluting Mercedes diesels.
- 234. Plaintiffs' experts in this case tested the Mercedes diesel vehicles and made the first public disclosure of Mercedes' unlawful conduct through certain of the counsel in this case in a civil suit filed in the District of New Jersey. Reportedly as a result of that lawsuit, Mercedes is under investigation by the Department of Justice and German authorities with respect to its BlueTEC diesel vehicles. Over 14 Mercedes diesel models are alleged to produce emissions 8.1 to 19.7 times relevant standards. Bosch GmbH supplied the EDC17 in the polluting Mercedes vehicles.
  - 7. Bosch GmbH also made the EDC17 found in 700,000 polluting General Motors trucks.
- 235. Bosch made the EDC17 found in the 2011–2016 General Motors
  Sierra 2500 and 3500 HD trucks and Chevrolet Silverado HD trucks. These trucks
  are competitors with Ford's Super Duty trucks.
- 236. Bosch supplied the software and function sheets for these vehicles and enabled the vehicles to have three different cheat devices.
- 237. <u>GM Defeat Device No. 1</u> reduces or derates the emissions system when temperatures are above the emissions certification test range (86°F). <u>GM Defeat Device No. 2</u> operates to reduce emission control when temperatures are below the emissions certification low temperature range (68°F). Testing reveals

that at temperatures below 68°F (the lower limit of the certification test temperature), stop-and-go emissions are 2.1 times the emissions standard at 428 mg/mile (the standard is 200 mg/mile). At temperatures above 86°F, stop-andgo emissions are an average of 2.4 times the standard with some emissions as high as 5.8 times the standard. Based on temperatures in the top 30 metropolitan areas, these vehicles are operating with the emissions systems derated a material amount of their vehicle miles travelled. But the emission scheme is a step more nefarious: enter GM Defeat Device No. 3, which reduces the level of emission controls after 200-500 seconds of steady speed operation in all temperature windows, causing emissions to increase on average of a factor of 4.5. Based on a study of temperatures in 30 major metropolitan areas as well as the demographics of Silverado and Sierra sales, Plaintiffs' experts estimate that due to just the temperature-triggered defeat devices, the vehicles operate at 65–70% of their miles driven with emissions that are 2.1 to 5.8 times the standard.

238. Increased sales and thus increased profits drove General Motors to use at least these three defeat devices in its Duramax diesel engines. By reversing the traditional order of the exhaust treatment components and putting the Selective Catalytic Reduction (SCR) in front of the Diesel Particulate Filter (DPF), General Motors could obtain and market higher power and fuel efficiency from its engines while still passing the cold-start emissions certification tests. This made the trucks

more appealing and competitive in the marketplace, driving up sales and profits. But the reordering would have also drastically increased the need to employ Active Regeneration (i.e., burning off collected soot at a high temperature) and other power- and efficiency-sapping exhaust treatment measures, reversing the very advantage gained. General Motors' solution, with the participation of Defendants Robert Bosch GmbH and Robert Bosch LLC, was to install defeat devices to purposefully reduce SCR dosing, increase NOx emissions, and thus decrease Active Regeneration. The defeat devices allowed General Motors to have its cake and it eat too. It could gain the advantage of hot exhaust going into the SCR system needed to pass cold-start tests, while avoiding the fuel- and power-robbing Active Regeneration procedure that the DPF filter requires when the SCR treatment comes first. General Motors turned a blind eye to the twofold to fivefold increase in deadly NOx emissions its scheme caused—all to drive up its sales and profits.

# H. The damage from excessive NOx

#### 1. Environmental harm

239. NOx contributes to ground-level ozone and fine particulate matter. According to the EPA, "[e]xposure to these pollutants has been linked with a range of serious health effects, including increased asthma attacks and other respiratory illnesses that can be serious enough to send people to the hospital. Exposure to ozone and particulate matter have also been associated with premature death due to

respiratory-related or cardiovascular-related effects. Children, the elderly, and people with pre-existing respiratory disease are particularly at risk for health effects of these pollutants."

## 240. The EPA describes the danger of NOx as follows:

Acid Rain - NO<sub>x</sub> and sulfur dioxide react with other substances in the air to form acids which fall to earth as rain, fog, snow, or dry particles. Some may be carried by the wind for hundreds of miles. Acid rain damages forests; causes deterioration of cars, buildings, and historical monuments; and causes lakes and streams to become acidic and unsuitable for many fish.



#### Water Quality Deterioration

- Increased nitrogen loading in water bodies, particularly coastal estuaries, upsets the chemical balance of nutrients used by aquatic plants and animals. Additional nitrogen accelerates "eutrophication," which leads to oxygen depletion and reduces fish and shellfish populations. NO<sub>x</sub> emissions in the air are one of the largest sources of nitrogen pollution to the Chesapeake Bay.





Toxic Chemicals - In the air, NO<sub>x</sub> reacts readily with common organic chemicals, and even ozone, to form a wide variety of toxic products, some of which may cause biological mutations. Examples of these chemicals include the nitrate radical, nitroarenes, and nitrosamines.

Ground-level Ozone (Smog) - is formed when NO<sub>x</sub> and volatile organic compounds (VOCs) react in the presence of heat and sunlight. Children, the elderly, people with lung diseases such as asthma, and people who work or exercise outside are susceptible to adverse effects such as damage to lung tissue and reduction in lung function. Ozone can be transported by wind currents and cause health impacts far from the original sources. Millions of Americans live in areas that do not meet the health standards for ozone. Other impacts from ozone include damaged vegetation and reduced crop yields.





Particles - NO<sub>x</sub> react with ammonia, moisture, and other compounds to form nitric acid vapor and related particles. Human health concerns include effects on breathing and the respiratory system, damage to lung tissue, and premature death. Small particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease, such as emphysema and bronchitis, and aggravate existing heart disease.



Global Warming - One member of the NO<sub>x</sub> family, nitrous oxide, is a greenhouse gas. It accumulates in the atmosphere with other greenhouse gases causing a gradual rise in the earth's temperature. This will lead to increased risks to human health, a rise in the sea level, and other adverse changes to plant and animal habitat.

241. A recent study published in NATURE estimates that there are 38,000 deaths worldwide due to excess NOx emissions.

#### 2. Economic harm

242. Ford and Bosch will not be able to make the Polluting Vehicles comply with emissions standards without substantially degrading their performance characteristics, including their horsepower and their fuel efficiency. As a result, even if Ford and Bosch are able to make the Polluting Vehicles EPA-compliant, Class members will nonetheless suffer actual harm and damages because their vehicles will no longer perform as they did when purchased and as

advertised. This will necessarily result in a diminution in value of every Polluting Vehicle and it will cause owners of Polluting Vehicles to pay more for fuel while using their Polluting Vehicles; and it results in Class members overpaying for their vehicles at the time of purchase.

- 243. Plaintiffs and members of the Class paid a premium of nearly \$8,400, as Ford charged more for its Super Duty engine than a comparable gas engine based on features that were falsely advertised including the cleanliness of the emissions; fuel performance; and durability.
- 244. As a result of Ford's unfair, deceptive, and/or fraudulent business practices, and its failure to disclose that under normal operating conditions the Polluting Vehicles are not "clean" diesels, emit more pollutants than do gasoline-powered vehicles, and emit more pollutants than permitted under federal and state laws, owners and/or lessees of the Polluting Vehicles have suffered losses in money and/or property. Had Plaintiffs and Class members known of the higher emissions at the time they purchased or leased their Polluting Vehicles, or had they known of the effects on fuel economy if the emissions were not manipulated, they would not have purchased or leased those vehicles, or would have paid substantially less for the vehicles than they did. Moreover, when and if Ford recalls the Polluting Vehicles and degrades the Ford clean diesel engine performance and fuel efficiency in order to make the Polluting Vehicles compliant with EPA

standards, Plaintiffs and Class members will be required to spend additional sums on fuel and will not obtain the performance characteristics of their vehicles when purchased. Moreover, Polluting Vehicles will be worth less in the marketplace because of their decrease in performance and efficiency and increased wear on the engines, when or if these vehicles are fixed.

- 245. Without cheating emissions, Ford could not achieve the fuel economy and range that it promises. Moreover, when and if Ford recalls the Polluting Vehicles and degrades the engine performance in order to make the Polluting Vehicles compliant with EPA standards, Plaintiffs and Class members will be required to spend additional sums on fuel and will not obtain the performance characteristics of their vehicles as promised when purchased. And Polluting Vehicles will necessarily be worth less in the marketplace because of their decrease in performance and efficiency and increased wear on the vehicles' engines, and this results in an overpayment by Plaintiffs at the time of purchase.
- 246. Plaintiffs have also been harmed and injured by the fact that they unwittingly drove vehicles that were not legally on the road and unwittingly drove vehicles that were polluting in volumes and manners a reasonable consumer would not expect. This harm can be measured through economic analysis.

- I. The Ford scheme is just the latest in a worldwide diesel emissions cheating scandal that adds plausibility to the allegations here as virtually all diesel manufacturers are falsely advertising their vehicles.
- 247. As noted, the world was shocked to learn that Volkswagen had manufactured over 11 million vehicles that were on the road in violation of European emissions standards, and over 480,000 vehicles were operating in the United States in violation of EPA and state standards. But Volkswagen was not the only manufacturer of vehicles that exceeded emissions standards.
- 248. In the wake of the major scandal involving Volkswagen and Audi diesel vehicles evading emissions standards with the help of certain software that manipulates emission controls (called "defeat devices"), <sup>46</sup> scientific literature and reports and testing indicate that most of the diesel vehicle manufactures of so-called "clean diesel" vehicles emit far more pollution on the road than in lab tests. The EPA has widened its probe of auto emissions to include, for example, the Mercedes BlueTEC diesels and FCA's Jeep Cherokees and Dodge Rams.

<sup>&</sup>lt;sup>46</sup> Exhibit 37, EPA's Sept. 18, 2015 Notice of Violation to Volkswagen Group of America, Inc., available at <a href="https://www.epa.gov/sites/production/files/2015-10/documents/vw-nov-caa-09-18-15.pdf">https://www.epa.gov/sites/production/files/2015-10/documents/vw-nov-caa-09-18-15.pdf</a>. As detailed in the Notice of Violation, software in Volkswagen and Audi diesel vehicles detects when the vehicle is undergoing official emissions testing and turns full emissions controls on only during the test. But otherwise, while the vehicle is running, the emissions controls are suppressed. This results in cars that meet emissions standards in the laboratory or at the state testing station, but during normal operation they emit NOx at up to 40 times the standard allowed under U.S. laws and regulations. Volkswagen has admitted to installing a defeat device in its diesel vehicles.

- 249. In May 2015, a study conducted on behalf of the Dutch Ministry of Infrastructure and the Environment found that all sixteen vehicles made by a variety of manufacturers, when tested, emitted significantly more NOx on real-world trips while they passed laboratory tests. The report concluded that "[i]n most circumstances arising in normal situations on the road, the system scarcely succeeded in any effective reduction of NOx emissions."
  - 250. The report further remarked:<sup>48</sup>

It is remarkable that the NOx emission under real-world conditions exceeds the type approval value by [so much]. It demonstrates that the settings of the engine, the EGR and the SCR during a real-world test trip are such that they do not result in low NOx emissions in practice. In other words: *In most circumstances arising in normal situations on the road, the systems scarcely succeed in any effective reduction of NOx emissions*.

The lack of any "effective reduction of NOx emissions" is a complete contradiction of Ford's claim that its vehicles are clean.

251. Other organizations are beginning to take notice of the emissions deception. The Transportation and Environment (T&E) organization, a European group aimed at promoting sustainable transportation, compiled data from "respected testing authorities around Europe." T&E stated in September 2015 that real-world emissions testing showed drastic differences from laboratory tests such

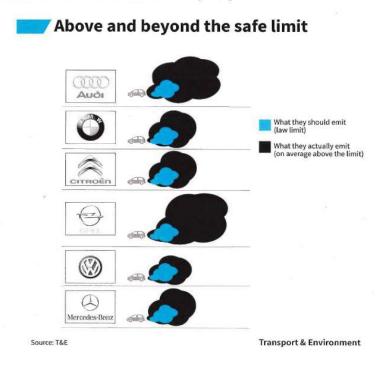
<sup>&</sup>lt;sup>47</sup> Exhibit 38, *Detailed investigations and real-world emission performance of Euro 6 diesel passenger cars*, TNO (May 18, 2015), <a href="http://publications.tno.nl/publication/34616868/a1Ug1a/TNO-2015-R10702.pdf">http://publications.tno.nl/publication/34616868/a1Ug1a/TNO-2015-R10702.pdf</a>.

<sup>&</sup>lt;sup>48</sup> *Id.* at 6 (emphasis added).

that models tested emitted more pollutants on the road than in their laboratory tests. "For virtually every new model that comes onto the market the gap between test and real-world performance leaps," the report asserts.<sup>49</sup>

- 252. In a summary report, T&E graphically depicted the widespread failure of most manufacturers:<sup>50</sup>
  - The problem is endemic across the car industry but the performance of individual models and manufacturers varies widely

In tests by the ICCT¹ 12 out of 13 modern diesel cars failed to achieve the Euro 6 limit in on the road. The worst vehicle, an Audi, emitted 22 times the allowed limit. Emissions are highest in urban areas where most people are exposed to the pollution. On average a new diesel car emits **over** 800mg/km of nitrogen oxides driving in town compared to the limit of 80mg/km. Data obtained on around 20 modern diesel cars by T&E shows every major manufacturer is selling cars that fail to meet Euro 6 limits on the road. A minority of vehicles do meet the limits – but most don't. This is because the industry uses cheaper less effective exhaust treatment systems or fails to configure the best systems in a way that minimizes emissions. The cost of a modern diesel after treatment system is just €300.



<sup>&</sup>lt;sup>49</sup> Exhibit 39 VW's cheating is just the tip of the iceberg, Transport & Environment (Sept. 21, 2015), <a href="http://www.transportenvironment.org/publications/vw%E2%80%99s-cheating-just-tip-iceberg">http://www.transportenvironment.org/publications/vw%E2%80%99s-cheating-just-tip-iceberg</a>.

<sup>&</sup>lt;sup>50</sup> Exhibit 40, *Five facts about diesel the car industry would rather not tell you*, Transport & Environment (Sept. 2015), <a href="http://www.transportenvironment.org/sites/te/files/publications/2015">http://www.transportenvironment.org/sites/te/files/publications/2015</a> 09 Five facts about diesel FINAL.pdf.

- 253. The T&E report found that the current system for testing vehicles in a laboratory produces "meaningless results." 51
- 254. Emissions Analytics is a U.K. company which says that it was formed to "overcome the challenge of finding accurate fuel consumption and emissions figures for road vehicles." With regard to its recent on-road emissions testing, the company explains:<sup>52</sup>

[I]n the European market, we have found that real-world emissions of the regulated nitrogen oxides are four times above the official level, determined in the laboratory. Real-world emissions of carbon dioxide are almost one-third above that suggested by official figures. For car buyers, this means that fuel economy on average is one quarter worse than advertised. This matters, even if no illegal activity is found.

255. In June 2016, T&E issued a new report identifying the thirty most polluting vehicles in Europe, comparing road testing to the Euro 6 Standard (lower than the United States). The T&E "Dirty 30" included two Ford models, which exceed emissions by 5.5 times and 6 times the Euro 6 Standard. These Ford models employed a thermal window and hot restart defect devices.

<sup>&</sup>lt;sup>51</sup> *Id*.

<sup>&</sup>lt;sup>52</sup> Exhibit 41, Emissions Analytics Press Release (Sept. 28, 2015), available at <a href="http://www.abvwc.com/home/emissions-analytics">http://www.abvwc.com/home/emissions-analytics</a>.

#### VI. TOLLING OF THE STATUTE OF LIMITATIONS

# A. Discovery rule tolling

- 256. Class members had no way of knowing about Ford's deception with respect to the comparatively and unlawfully high emissions of its Ford clean diesel engine system in the Polluting Vehicles. To be sure, Ford continues to market the Polluting Vehicles as "clean" diesels that have lower emissions than gasoline vehicles and also continues to claim that the Polluting Vehicles comply with EPA emissions standards.
- 257. Within the period of any applicable statutes of limitation, Plaintiffs and members of the proposed Classes could not have discovered through the exercise of reasonable diligence that Ford was concealing the conduct complained of herein and misrepresenting the company's true position with respect to the emission qualities of the Polluting Vehicles.
- 258. Plaintiffs and the other Class members did not discover, and did not know of, facts that would have caused a reasonable person to suspect that Ford did not report information within its knowledge to federal and state authorities, its dealerships, or consumers; nor would a reasonable and diligent investigation have disclosed that Ford had concealed information about the true emissions of the Polluting Vehicles, which was discovered by Plaintiffs only shortly before this action was filed. Nor in any event would such an investigation on the part of

Plaintiffs and other Class members have disclosed that Ford valued profits over truthful marketing and compliance with the law.

259. For these reasons, all applicable statutes of limitation have been tolled by operation of the discovery rule with respect to claims as to the Polluting Vehicles.

# B. Fraudulent concealment tolling

- 260. All applicable statutes of limitation have also been tolled by Ford's knowing and active fraudulent concealment and denial of the facts alleged herein throughout the period relevant to this action.
- 261. Instead of disclosing its emissions scheme, or that the quality and quantity of emissions from the Polluting Vehicles were far worse than represented, and of its disregard of the law, Ford falsely represented that the Polluting Vehicles had emissions cleaner than their gasoline-powered counterparts, complied with federal and state emissions standards, that the diesel engines were "clean," and that it was a reputable manufacturer whose representations could be trusted.

# C. Estoppel

262. Ford was under a continuous duty to disclose to Plaintiffs and the other Class members the true character, quality, and nature of emissions from the Polluting Vehicles and of those vehicles' emissions systems.

- 263. Ford knowingly, affirmatively, and actively concealed or recklessly disregarded the true nature, quality, and character of the emissions systems, and the emissions, of the Polluting Vehicles, and continues to do so. For example, in its 2016 Annual Report, Ford acknowledges the Volkswagen emissions scandal but makes no disclosure of the emissions irregularities in its Polluting Vehicles.
- 264. Based on the foregoing, Ford is estopped from relying on any statutes of limitations in defense of this action.

## VII. CLASS ALLEGATIONS

265. Plaintiffs bring this action on behalf of themselves and as a class action, pursuant to the provisions of Rules 23(a) and (b)(3) of the Federal Rules of Civil Procedure, on behalf of the following class (collectively, the "Class"):

All persons who purchased or leased a model year 2011–2017 Ford F-250 or F-350 Super Duty.

266. Excluded from the Class are individuals who have personal injury claims resulting from the high emissions in the Polluting Vehicles. Also excluded from the Class are Ford and its subsidiaries and affiliates; all persons who make a timely election to be excluded from the Class; governmental entities; the Judge to whom this case is assigned and his/her immediate family; and Plaintiffs' counsel. Plaintiffs reserve the right to revise the Class definition based upon information learned through discovery.

- 267. Certification of Plaintiffs' claims for class-wide treatment is appropriate because Plaintiffs can prove the elements of their claims on a class-wide basis using the same evidence as would be used to prove those elements in individual actions alleging the same claim.
- 268. This action has been brought and may be properly maintained on behalf of the Class proposed herein under Federal Rule of Civil Procedure 23.
- 269. Numerosity. Federal Rule of Civil Procedure 23(a)(1): The members of the Class are so numerous and geographically dispersed that individual joinder of all Class members is impracticable. For purposes of this complaint, Plaintiffs allege that there are in excess of an estimated 500,000 or more vehicles in the Class. The precise number of Class members is unknown to Plaintiffs but may be ascertained from Ford's books and records. Class members may be notified of the pendency of this action by recognized, Court-approved notice dissemination methods, which may include U.S. Mail, electronic mail, Internet postings, and/or published notice.
- 270. <u>Commonality and Predominance</u>: Federal Rule of Civil Procedure 23(a)(2) and 23(b)(3): This action involves common questions of law and fact, which predominate over any questions affecting individual Class members, including, without limitation:
  - a) Whether Ford and Bosch engaged in the conduct alleged herein;

- b) Whether Ford designed, advertised, marketed, distributed, leased, sold, or otherwise placed Polluting Vehicles into the stream of commerce in the United States;
- c) Whether the Ford engine system in the Polluting Vehicles emit pollutants at levels that do not make them "clean" diesels and that do not comply with EPA requirements;
- d) Whether Ford and Bosch omitted material facts about emissions, fuel economy, and towing capacity;
- e) Whether Ford and Bosch knew about the comparatively high emissions and, if so, how long Ford and Bosch have known;
- f) Whether Ford designed, manufactured, marketed, and distributed Polluting Vehicles with defective or otherwise inadequate emission controls;
- g) Whether Ford and Bosch's conduct violates RICO and consumer protection statutes, and constitutes breach of contract and fraudulent concealment, as asserted herein;
- h) Whether there is an Enterprise;
- i) Whether Bosch participated in the Enterprise;
- j) Whether Plaintiffs and the other Class members overpaid for their vehicles at the point of sale; and
- k) Whether Plaintiffs and the other Class members are entitled to damages and other monetary relief and, if so, in what amount.
- 271. <u>Typicality</u>: Federal Rule of Civil Procedure 23(a)(3): Plaintiffs' claims are typical of the other Class members' claims because, among other things, all Class members were comparably injured through Ford's wrongful conduct as described above.

- 272. Adequacy: Federal Rule of Civil Procedure 23(a)(4): Plaintiffs are adequate Class representatives because their interests do not conflict with the interests of the other members of the Classes they seek to represent; Plaintiffs have retained counsel competent and experienced in complex class action litigation; and Plaintiffs intend to prosecute this action vigorously. Plaintiffs' counsel have been pioneers in uncovering emissions misconduct, including doing so in the Mercedes, General Motors, and FCA emissions cases. Plaintiffs' counsel conducted a pioneering investigation in this case spanning over eight months. The Classes' interests will be fairly and adequately protected by Plaintiffs and their counsel.
- 273. Superiority: Federal Rule of Civil Procedure 23(b)(3): A class action is superior to any other available means for the fair and efficient adjudication of this controversy, and no unusual difficulties are likely to be encountered in the management of this class action. The damages or other financial detriment suffered by Plaintiffs and the other Class members are relatively small compared to the burden and expense that would be required to individually litigate their claims against Ford, so it would be impracticable for the members of the Classes to individually seek redress for Ford's wrongful conduct. Even if Class members could afford individual litigation, the court system could not. Individualized litigation creates a potential for inconsistent or contradictory judgments and increases the delay and expense to all parties and the court system. By contrast, the

class action device presents far fewer management difficulties and provides the benefits of single adjudication, economy of scale, and comprehensive supervision by a single court.

## VIII. CLAIMS

# A. Claims brought on behalf of the Nationwide RICO Class

# **COUNT 1**

# VIOLATIONS OF RACKETEER INFLUENCED AND CORRUPT ORGANIZATIONS ACT (RICO) VIOLATION OF 18 U.S.C. § 1962(C), (D)

- 274. Plaintiffs incorporate by reference each preceding and succeeding paragraph as though fully set forth herein.
- 275. Plaintiffs bring this Count individually and on behalf of the Nationwide RICO Class against Defendants Ford, Robert Bosch GmbH, and Robert Bosch LLC (collectively, "RICO Defendants").
- 276. The RICO Defendants are all "persons" under 18 U.S.C. § 1961(3) because they are capable of holding, and do hold, "a legal or beneficial interest in property."
- 277. Section 1962(c) makes it "unlawful for any person employed by or associated with any enterprise engaged in, or the activities of which affect, interstate or foreign commerce, to conduct or participate, directly or indirectly, in the conduct of such enterprise's affairs through a pattern of racketeering activity." Section 1962(d), in turn, makes it unlawful for "any person to conspire to violate."

278. For many years now, the RICO Defendants have aggressively sought to increase the sales of Polluting Vehicles in an effort to bolster revenue, augment profits, and increase Ford's share of the diesel truck market. Finding it impossible to achieve their goals lawfully, however, the RICO Defendants resorted instead to orchestrating a fraudulent scheme and conspiracy. In particular, the RICO Defendants, along with other entities and individuals, created and/or participated in the affairs of an illegal enterprise ("Super Duty Diesel Fraud Enterprise") whose direct purpose was to deceive the regulators and the public into believing the Polluting Vehicles were "clean" and "environmentally friendly." As explained in greater detail below, the RICO Defendants' acts in furtherance of the Super Duty Diesel Fraud Enterprise violate Sections 1962(c) and (d).

# 1. The members of the Super Duty Diesel Fraud Enterprise

- 279. Upon information and belief, the Super Duty Diesel Fraud Enterprise consisted of at least the following entities and individuals: Ford, Robert Bosch GmbH, and Robert Bosch LLC.
- 280. Robert Bosch GmbH and Robert Bosch LLC tested, manufactured, and sold the electronic control module (ECM) that managed the emission control system used by Ford in the Polluting Vehicles. This particular ECM is more formally referred to as the Electronic Diesel Control Unit 17.

- 281. Defendant Bosch GmbH is a multinational engineering and electronics company headquartered in Gerlingen, Germany, which has hundreds of subsidiaries and companies. It wholly owns defendant Bosch LLC, a Delaware limited liability company headquartered in Farmington Hills, Michigan. As explained above, Bosch's sectors and divisions are grouped by subject matter, not location. Mobility Solutions (formerly Automotive Technology) is the Bosch sector at issue, particularly its Diesel Services division, and it encompasses employees of Bosch GmbH and Bosch LLC. These individuals were responsible for the design, manufacture, development, customization, and supply of the defeat device to Ford for use in the Polluting Vehicles.
- 282. Bosch worked with Ford, Volkswagen, Mercedes, General Motors, and FCA to develop and implement a specific and unique set of software algorithms to surreptitiously evade emissions regulations. Bosch customized their EDC Unit 17s for installation in the Polluting Vehicles with unique software code to detect when it was undergoing emissions testing, as described above, and did so for other vehicles with defeat devices in Volkswagen and Mercedes vehicles.<sup>53</sup>
- 283. Bosch's conduct with respect to Volkswagen and other manufacturers, outlined below, adds plausibility to its participation in the enterprise described

<sup>&</sup>lt;sup>53</sup> Exhibit 18, Michael Taylor, *EPA Investigating Bosch over VW Diesel Cheater Software*, Car and Driver (Nov. 23, 2015), <a href="http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/">http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/</a>.

herein. For example, Bosch was well aware that the EDC Unit 17 would be used by automobile manufacturers, including Ford, to cheat on emissions testing. Bosch was also critical to the concealment of the defeat device in communications with U.S. regulators and went even further to actively lobby U.S. lawmakers on behalf of Volkswagen and its "clean diesel" vehicles.

- 284. EDC Unit 17 could not effectively lower NOx emissions to legal levels during normal operating conditions. In order to pass the emissions test, then, EDC Unit 17 is equipped with a "defeat device," which is software that allows the vehicle to determine whether it is being operated under normal conditions or testing conditions.
- 285. The EDC 17 ECU was manufactured by Bosch GmbH and sold to Ford. Bosch built the ECU hardware and developed the software running in the ECU. Bosch developed a "function sheet" that documents the functional behavior of a particular release of the ECU firmware. All function sheets used in the Ford EDC, on information and belief, bear a "Robert Bosch GmbH" copyright.
- 286. As was publicly reported, the Bosch defendants, seeking to conceal their involvement in the unlawful Volkswagen Diesels, sent a letter to Volkswagen AG in 2007 stating that Volkswagen Diesels *could not be lawfully operated* if the

LNT or SCR after-treatment system was disabled.<sup>54</sup> The exact same logic applies to the Ford Polluting Vehicles—*i.e.*, they could not be lawfully operated with the defeat device.

- 287. Indeed, notwithstanding their knowledge that the Volkswagen Diesels could not be lawfully operated if the emissions system was disabled, the Bosch defendants, driven to cement their position as a leading supplier of diesel emissions equipment, went on to sell approximately eleven million EDC Unit 17s to Volkswagen over an eight-year period and sold hundreds of thousands of EDC units to Ford for use in Polluting Vehicles, as well as hundreds of thousands of units to Mercedes and FCA.<sup>55</sup>
- 288. The persons and entities described in the preceding section are members of and constitute an "association-in-fact" enterprise.
- 289. At all relevant times, the Super Duty Diesel Fraud Enterprise: (a) had an existence separate and distinct from each Defendant; (b) was separate and distinct from the pattern of racketeering in which the RICO Defendants engaged; and (c) was an ongoing organization consisting of legal entities, including Ford, the Bosch defendants, and other entities and individuals associated for the common

<sup>&</sup>lt;sup>54</sup> Exhibit 42, Stef Shrader, *Feds Are Now Investigating Volkswagen Supplier Bosch Over Dieselgate*, Jalopnik (Nov. 19, 2015), <a href="http://jalopnik.com/feds-are-now-investigating-volkswagen-supplier-bosch-ov-1743624448">http://jalopnik.com/feds-are-now-investigating-volkswagen-supplier-bosch-ov-1743624448</a>.

<sup>&</sup>lt;sup>55</sup> Exhibit 18, Michael Taylor, *EPA Investigating Bosch over VW Diesel Cheater Software*, Car and Driver (Nov. 23, 2015), <a href="http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/">http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/</a>.

Purpose of designing, manufacturing, distributing, testing, and selling the Polluting Vehicles through fraudulent COCs and EOs, false emissions tests, deceptive and misleading marketing and materials, and deriving profits and revenues from those activities. Each member of the Super Duty Diesel Fraud Enterprise shared in the bounty generated by the enterprise—*i.e.*, by sharing the benefit derived from increased sales revenue generated by the scheme to defraud consumers and franchise dealers alike nationwide.

- 290. The Super Duty Diesel Fraud Enterprise functioned by selling vehicles and component parts to the consuming public. Many of these products are legitimate, including vehicles that do not contain defeat devices and software capable of allowing the engine to manipulate the software such that the emissions system is turned on or off at certain times. However, the RICO Defendants and their co-conspirators, through their illegal Enterprise, engaged in a pattern of racketeering activity, which involves a fraudulent scheme to increase revenue for Defendants and the other entities and individuals associated-in-fact with the Enterprise's activities through the illegal scheme to sell the Polluting Vehicles.
- 291. The Super Duty Diesel Fraud Enterprise engaged in and its activities affected interstate and foreign commerce because it involved commercial activities across state boundaries, such as the marketing, promotion, advertisement and sale

or lease of the Polluting Vehicles throughout the country and the receipt of monies from the sale of the same.

- 292. Within the Super Duty Diesel Fraud Enterprise, there was a common communication network by which co-conspirators shared information on a regular basis. The Super Duty Diesel Fraud Enterprise used this common communication network for the purpose of manufacturing, marketing, testing, and selling the Polluting Vehicles to the general public nationwide.
- 293. Each participant in the Super Duty Diesel Fraud Enterprise had a systematic linkage to each other through corporate ties, contractual relationships, financial ties, and continuing coordination of activities. Through the Super Duty Diesel Fraud Enterprise, the RICO Defendants functioned as a continuing unit with the purpose of furthering the illegal scheme and their common purposes of increasing their revenues and market share, and minimizing losses.
- 294. The RICO Defendants participated in the operation and management of the Super Duty Diesel Fraud Enterprise by directing its affairs, as described herein. While the RICO Defendants participated in, and are members of, the enterprise, they have a separate existence from the enterprise, including distinct legal statuses, different offices and roles, bank accounts, officers, directors, employees, individual personhood, reporting requirements, and financial statements.

- 295. Ford exerted substantial control and participated in the affairs of the Super Duty Diesel Fraud Enterprise by:
  - a. Designing in conjunction with Robert Bosch GmbH the Polluting Vehicles with defeat devices;
  - b. Failing to correct or disable the defeat devices;
  - c. Manufacturing, distributing, and selling the Polluting Vehicles that emitted greater pollution than allowable under the applicable regulations;
  - d. Misrepresenting and omitting (or causing such misrepresentations and omissions to be made) vehicle specifications on COC and EO applications;
  - e. Introducing the Polluting Vehicles into the stream of U.S. commerce without a valid COC and/or EO;
  - f. Concealing the existence of the defeat devices and the unlawfully high emissions from regulators and the public;
  - g. Persisting in the manufacturing, distribution, and sale of the Polluting Vehicles even after questions were raised about the emissions testing and discrepancies concerning the same;
  - h. Misleading government regulators as to the nature of the defeat devices and the defects in the Polluting Vehicles;
  - i. Misleading the driving public as to the nature of the defeat devices and the defects in the Polluting Vehicles;
  - j. Designing and distributing marketing materials that misrepresented and concealed the defects in the vehicles;
  - k. Otherwise misrepresenting or concealing the defective nature of the Polluting Vehicles from the public and regulators; and

- 1. Illegally selling and/or distributing the Polluting Vehicles; collecting revenues and profits from the sale of such products; and ensuring that the other RICO Defendants and unnamed co-conspirators complied with the fraudulent scheme.
- 296. Bosch also participated in, operated, and/or directed the Super Duty Diesel Fraud Enterprise. Bosch participated in the fraudulent scheme by manufacturing, installing, testing, modifying, and supplying the EDC Unit 17 which operated as a "defeat device" in the Polluting Vehicles. Bosch exercised tight control over the coding and other aspects of the defeat device software and closely collaborated with Ford to develop, customize, and calibrate the defeat devices. Additionally, Bosch continuously cooperated with Ford to ensure that the EDC Unit 17 was fully integrated into the Polluting Vehicles. Bosch also participated in the affairs of the Enterprise by concealing the defeat devices on U.S. documentation and in communications with U.S. regulators. Bosch collected tens of millions of dollars in revenues and profits from the hidden defeat devices installed in the Polluting Vehicles.
- 297. Without the RICO Defendants' willing participation, including Bosch's active involvement in developing and supplying the critical defeat devices for the Polluting Vehicles, the Super Duty Diesel Fraud Enterprise's scheme and common course of conduct would not have been successful.
- 298. The RICO Defendants directed and controlled the ongoing organization necessary to implement the scheme at meetings and through

communications of which Plaintiffs cannot fully know at present because such information lies in the Defendants' and others' hands.

- 299. The members of the Super Duty Diesel Fraud Enterprise all served a common purpose; namely, to outsell their law-abiding competitors and increase their revenues through the sale of as many Polluting Vehicles (including the emissions components made and sold by Bosch) as possible. Each member of the Super Duty Diesel Fraud Enterprise shared the bounty generated by the enterprise—i.e., by sharing the benefit derived from increased sales revenue generated by the scheme to defraud. Ford sold more Polluting Vehicles by utilizing an emission control system that was cheaper to install and allowed for generous performance and efficiency tuning, all while charging consumers a premium for purportedly "clean" and "fuel efficient" Polluting Vehicles. The Bosch defendants, in turn, sold more EDC Units because Ford manufactured and sold more Polluting Vehicles. The RICO Defendants achieved their common purpose by repeatedly misrepresenting and concealing the nature of the Polluting Vehicles and the ability of the emission control systems (including the Bosch-supplied parts) to effectively reduce toxic emissions during normal operating conditions.
- 300. The RICO Defendants continued their enterprise even after the Volkswagen scandal became public in September 2015. Ford continued to manufacture and sell 2016 Polluting Vehicles. Assuming top executives at Ford

did not know of the defeat devices in its vehicles (an assumption not true of Volkswagen or Bosch), a responsible chief executive would have inquired: Do we have a diesel problem? Either top executives at Ford failed to ask questions or they agreed to continue a cover-up because Ford did not stop selling Polluting Vehicles and has continued to conceal the truth.

301. In fact, Ford acknowledged in its 2016 Annual Report the U.S. enforcement action against Volkswagen and that "The emergence of this issue has led to increased scrutiny of automaker emission testing by regulators around the world." Ford, despite this acknowledgement, continues to conceal the emissions issue with respect to the Polluting Vehicles.

# 2. The predicate acts

- 302. To carry out, or attempt to carry out, the scheme to defraud, the RICO Defendants conducted or participated in the conduct of the affairs of the Super Duty Diesel Fraud Enterprise through a pattern of racketeering activity that employed the use of mail and wire facilities, in violation of 18 U.S.C. §§ 1341 (mail fraud) and 1343 (wire fraud).
- 303. Specifically, the RICO Defendants participated in the scheme to defraud by using mail, telephone, and the Internet to transmit writings travelling in interstate or foreign commerce.

<sup>&</sup>lt;sup>56</sup> Ford 2016 Annual Report at p. 14.

- 304. The RICO Defendants' use of the mails and wires include but are not limited to the transmission, delivery, or shipment of the following by the RICO Defendants or third parties that were foreseeably caused to be sent as a result of Defendants' illegal scheme:
  - a. Application for certificates submitted to the EPA and CARB;
  - b. The Polluting Vehicles themselves;
  - c. Component parts for the defeat devices;
  - d. Essential hardware for the Polluting Vehicles;
  - e. Falsified emission tests;
  - f. Fraudulently-obtained COCs and EOs;
  - g. Vehicle registrations and plates as a result of the fraudulently-obtained COCs and EOs;
  - h. Documents and communications that facilitated the falsified emission tests;
  - i. False or misleading communications intended to lull the public and regulators from discovering the defeat devices and/or other auxiliary devices;
  - j. Sales and marketing materials, including advertising, websites, product packaging, brochures, and labeling, which misrepresented and concealed the true nature of the Polluting Vehicles;
  - k. Documents intended to facilitate the manufacture and sale of the Polluting Vehicles, including bills of lading, invoices, shipping records, reports and correspondence;
  - 1. Documents to process and receive payment for the Polluting Vehicles by unsuspecting franchise dealers, including invoices and receipts;
  - m. Payments to Bosch;

- n. Deposits of proceeds;
- o. SEC filings where Ford has failed to disclose the scheme and has continued to do so post the Volkswagen scandal; and
- p. Other documents and things, including electronic communications
- 305. The RICO Defendants, in furtherance of their scheme, used the wires and mails to apply for, or submit revisions to, certificates of compliance with the Clean Air Act of 1990. The RICO Defendants used the mails on at least the following dates for this purpose on May 21, 2015; September 28, 2012; April 21, 2011; August 22, 2012; February 25, 2014; April 21, 2015; and May 15, 2013.
- 306. As part of the operation of the Enterprise, Ford received from the EPA through the U.S. Mail, Certificates Of Conformity With the Clean Air Act of 1990. These Certificates were issued on February 11, 2010; June 28, 2011; October 15, 2012; July 20, 2013; February 26, 2014; and May 21, 2015.
- 307. The RICO Defendants utilized the interstate and international mail and wires for the purpose of obtaining money or property by means of the omissions, false pretense, and misrepresentations described therein.
- 308. The RICO Defendants also used the Internet and other electronic facilities to carry out the scheme and conceal the ongoing fraudulent activities.

  Specifically, Ford made misrepresentations about the Polluting Vehicles on Ford websites, YouTube, and through ads online, all of which were intended to mislead

regulators and the public about the fuel efficiency, emissions standards, and other performance metrics.

- 309. The RICO Defendants also communicated by U.S. Mail, by interstate facsimile, and by interstate electronic mail with various other affiliates, regional offices, divisions, dealerships, and other third-party entities in furtherance of the scheme.
- 310. The mail and wire transmissions described herein were made in furtherance of the RICO Defendants' scheme and common course of conduct to deceive regulators and consumers and lure consumers into purchasing the Polluting Vehicles, which the RICO Defendants knew or recklessly disregarded as emitting illegal amounts of pollution, despite their advertising campaign that the Polluting Vehicles were "clean" diesel vehicles or vehicles with a "remarkable reduction in emission."
- 311. Many of the precise dates of the fraudulent uses of U.S. Mail and interstate wire facilities have been deliberately hidden and cannot be alleged without access to the RICO Defendants' books and records. However, Plaintiffs have described the types of, and in some instances, occasions on which the predicate acts of mail and/or wire fraud occurred. They include thousands of communications to perpetuate and maintain the scheme, including the things and documents described in the preceding paragraphs.

- 312. The RICO Defendants have not undertaken the practices described herein in isolation, but as part of a common scheme and conspiracy. In violation of 18 U.S.C. § 1962(d), the RICO Defendants conspired to violate 18 U.S.C. § 1962(c), as described herein. Various other persons, firms, and corporations, including third-party entities and individuals not named as defendants in this Complaint, have participated as co-conspirators with the RICO Defendants in these offenses and have performed acts in furtherance of the conspiracy to increase or maintain revenues, increase market share, and/or minimize losses for the RICO Defendants and their unnamed co-conspirators throughout the illegal scheme and common course of conduct.
- 313. The RICO Defendants aided and abetted others in the violations of the above laws, thereby rendering them indictable as principals in the 18 U.S.C. §§ 1341 and 1343 offenses.
- 314. To achieve their common goals, the RICO Defendants hid from the general public the unlawfulness and emission dangers of the Polluting Vehicles and obfuscated the true nature of the defect even after regulators raised concerns. The RICO Defendants suppressed and/or ignored warnings from third parties, whistleblowers, and governmental entities about the discrepancies in emissions testing and the defeat devices present in the Polluting Vehicles.

- 315. The RICO Defendants and each member of the conspiracy, with knowledge and intent, have agreed to the overall objectives of the conspiracy and participated in the common course of conduct to commit acts of fraud and indecency in designing, manufacturing, distributing, marketing, testing, and/or selling the Polluting Vehicles (and the defeat devices contained therein).
- 316. Indeed, for the conspiracy to succeed, each of the RICO Defendants and their co-conspirators had to agree to implement and use the similar devices and fraudulent tactics—specifically, complete secrecy about the defeat devices in the Polluting Vehicles.
- 317. The RICO Defendants knew and intended that government regulators, as well as Plaintiffs and Class members, would rely on the material misrepresentations and omissions made by them about the Polluting Vehicles. The RICO Defendants knew and intended that Plaintiffs and the Class would incur costs and damages as a result. As fully alleged herein, Plaintiffs and the Class relied upon Defendants' representations and omissions that were made or caused by them. Plaintiffs' reliance is made obvious by the fact that: (1) they purchased hundreds of thousands of vehicles that never should have been introduced into the U.S. stream of commerce and whose worth is far less than what was paid. In addition, the EPA, CARB, and other regulators relied on the misrepresentations and material omissions made or caused to be made by the RICO Defendants;

otherwise, Ford could not have obtained valid COCs and EOs to sell the Polluting Vehicles.

- 318. The RICO Defendants' conduct in furtherance of this scheme was intentional. Plaintiffs and the Class were harmed as a result of the RICO Defendants' intentional conduct. Plaintiffs, the Class, regulators, and consumers, among others, relied on the RICO Defendants' material misrepresentations and omissions.
- 319. As described herein, the RICO Defendants engaged in a pattern of related and continuous predicate acts for many years. The predicate acts constituted a variety of unlawful activities, each conducted with the common purpose of defrauding Plaintiffs and other Class members and obtaining significant monies and revenues from them and through them while providing Polluting Vehicles worth significantly less than the invoice price paid. The predicate acts also had the same or similar results, participants, victims, and methods of commission. The predicate acts were related and not isolated events.
- 320. The predicate acts all had the purpose of generating significant revenue and profits for the RICO Defendants at the expense of Plaintiffs, the Class, and consumers. The predicate acts were committed or caused to be committed by the RICO Defendants through their participation in the Super Duty Diesel Fraud Enterprise and in furtherance of its fraudulent scheme, and were interrelated in that

they involved obtaining Plaintiffs' and Class members' funds, artificially inflating the brand and dealership goodwill values, and avoiding the expenses associated with remediating the Polluting Vehicles.

- 321. During the design, manufacture, testing, marketing, and sale of the Polluting Vehicles, the RICO Defendants shared technical, marketing, and financial information that plainly revealed the emission control systems in the Polluting Vehicles as the ineffective, illegal, and fraudulent piece of technology they were and are. Nevertheless, the RICO Defendants shared and disseminated information that deliberately represented Polluting Vehicles as "cleanest super diesel ever," "most tested power stroke diesel engine ever," and "having 'Enhanced Tow/Haul mode."
- 322. By reason of and as a result of the conduct of the RICO Defendants, and in particular its pattern of racketeering activity, Plaintiffs and the Class have been injured in multiple ways, including but not limited to:
  - a. Overpayment for Polluting Vehicles, in that Plaintiffs and the
    Class at the time of purchase believed they were paying for
    vehicles that met certain emission and fuel efficiency standards
    and obtained vehicles that did not meet these standards and
    were worth less than what was paid;

- b. Plaintiffs have been wrongfully deprived of their property in that the price for their vehicles was artificially inflated by deliberate acts of false statements, omissions and concealment and by the RICO Defendants' acts of racketeering.
- 323. The RICO Defendants' violations of 18 U.S.C. § 1962(c) and (d) have directly and proximately caused injuries and damages to Plaintiffs and the Class, and Plaintiffs and the Class are entitled to bring this action for three times their actual damages, as well as injunctive/equitable relief, costs, and reasonable attorneys' fees pursuant to 18 U.S.C. § 1964(c). Each of the RICO Defendants knew, understood, and intended for members of the Class to purchase the Polluting Vehicles, and knew, understood, and foresaw that revelation of the truth would injure members of the Class.

# B. State law claims

#### COUNT 2

# VIOLATION OF THE ARIZONA CONSUMER FRAUD ACT (ARIZONA REV. STAT. § 44-1521 ET SEQ.)

- 324. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 325. This claim is brought by Plaintiffs on behalf of Arizona purchasers who are members of the Class.

- 326. The Arizona Consumer Fraud Act (Arizona CFA) provides that "[t]he act, use or employment by any person of any deception, deceptive act or practice, fraud..., misrepresentation, or concealment, suppression or omission of any material fact with intent that others rely upon such concealment, suppression or omission, in connection with the sale . . . of any merchandise whether or not any person has in fact been misled, deceived or damaged thereby, is declared to be an unlawful practice." ARIZ. REV. STAT. § 44-1522(A). Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving decisions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.
- 327. Ford, Plaintiffs, and Class members are "persons" within the meaning of the Arizona CFA, ARIZ. REV. STAT. § 44-1521(6).
- 328. Each Polluting Vehicle at issue is "merchandise" within the meaning of ARIZ. REV. STAT. § 44-1521(5).
- 329. Ford's conduct, as set forth above, occurred in the conduct of trade or commerce.

- 330. Pursuant to the Arizona CFA, Plaintiffs seek monetary relief against Ford in an amount to be determined at trial. Plaintiffs also seek punitive damages because Ford engaged in aggravated and outrageous conduct with an evil mind.
- 331. Plaintiffs also seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, attorneys' fees, and any other just and proper relief available under the Arizona CFA.

# **COUNT 3**

# VIOLATIONS OF THE CALIFORNIA UNFAIR COMPETITION LAW (CAL. BUS. & PROF. CODE § 17200 ET SEQ.)

- 332. Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
- 333. This claim is brought by Plaintiffs on behalf of California purchasers who are members of the Class.
- 334. California's Unfair Competition Law (UCL), CAL. Bus. & PROF.

  CODE § 17200 et seq., proscribes acts of unfair competition, including "any unlawful, unfair or fraudulent business act or practice and unfair, deceptive, untrue or misleading advertising."
- 335. Ford's conduct, as described herein, was and is in violation of the UCL. Ford's conduct violates the UCL in at least the following ways:
- i. By failing to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions;

- ii. By selling and leasing Polluting Vehicles that suffer from a defective emission control system and that emit high levels of pollutants under normal driving conditions;
- iii. By knowingly and intentionally concealing from Plaintiffs and the other Class members that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions and that the Polluting Vehicles suffer from a defective emission control system and emit unlawfully high levels of pollutants under normal driving conditions;
- iv. By failing to disclose that fuel economy and towing capacity are achieved with manipulation of the emissions system;
- v. By marketing Polluting Vehicles as reduced emissions vehicles possessing functional and defect-free, EPA-compliant diesel engine systems; and
- vi. By violating other California laws, including California consumer protection laws and California laws governing vehicle emissions and emission testing requirements.
- 336. Ford intentionally and knowingly misrepresented material facts regarding the Polluting Vehicles with an intent to mislead Plaintiffs and the Class.
- 337. In purchasing or leasing the Polluting Vehicles, Plaintiffs and the other Class members were deceived by Ford's failure to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal

driving conditions, that the emission controls were defective, and that the Polluting Vehicles emitted unlawfully high levels of pollutants, including NOx, as described above.

- 338. Plaintiffs were also deceived in that Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.
- 339. Plaintiffs and Class members reasonably relied upon Ford's false misrepresentations. They had no way of knowing that Ford's representations were false and gravely misleading. As alleged herein, Ford engaged in extremely sophisticated methods of deception. Plaintiffs and Class members did not, and could not, unravel Ford's deception on their own.
  - 340. Ford knew or should have known that its conduct violated the UCL.
- 341. Ford owed Plaintiffs and the Class a duty to disclose the truth about its emissions systems manipulation because Ford:

- a. Possessed exclusive knowledge that it manipulated the emissions system in the Polluting Vehicles to turn off or limit effectiveness in normal driving conditions;
- b. Intentionally concealed the foregoing from Plaintiffs and the Class; and/or
- c. Made incomplete representations that it manipulated the emissions system in the Polluting Vehicles to turn off or limit effectiveness in normal driving conditions, while purposefully withholding material facts from Plaintiffs and the Class that contradicted these representations.
- 342. Ford had a duty to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, emits pollutants at a much higher rate than gasoline-powered vehicles, and that the emissions far exceeded those expected by a reasonable consumer. Plaintiffs and the other Class members relied on Ford's material representations and/or omissions that the Polluting Vehicles they were purchasing were reduced emission vehicles, efficient, and free from defects.
- 343. Ford's conduct proximately caused injuries to Plaintiffs and the other Class members.
- 344. Plaintiffs and the other Class members were injured and suffered ascertainable loss, injury-in-fact, and/or actual damage as a proximate result of

Ford's conduct in that Plaintiffs and the other Class members overpaid for their Polluting Vehicles, and/or their Polluting Vehicles have suffered a diminution in value. These injuries are the direct and natural consequence of Ford's misrepresentations and omissions.

- 345. Ford's violations present a continuing risk to Plaintiffs as well as to the general public. Ford's unlawful acts and practices complained of herein affect the public interest.
- 346. Ford's misrepresentations and omissions alleged herein caused Plaintiffs and the other Class members to make their purchases or leases of their Polluting Vehicles. Absent those misrepresentations and omissions, Plaintiffs and the other Class members would not have purchased or leased these vehicles, would not have purchased or leased these Polluting Vehicles at the prices they paid, and/or would have purchased or leased less expensive alternative vehicles that did not contain defective Ford Clean Diesel engine systems that failed to comply with EPA and California emissions standards.
- 347. Accordingly, Plaintiffs and the other Class members have suffered injury in fact, including lost money or property, as a result of Ford's misrepresentations and omissions.
- 348. Plaintiffs request that this Court enter such orders or judgments as may be necessary to restore to Plaintiffs and members of the Class any money it

acquired by unfair competition, including restitution and/or restitutionary disgorgement, as provided in CAL. Bus. & Prof. Code § 17203 and CAL. Civ. Code § 3345; and for such other relief as may be appropriate.

## **COUNT 4**

# VIOLATIONS OF THE CALIFORNIA FALSE ADVERTISING LAW (CAL. BUS. & PROF. CODE § 17500 ET SEQ.)

- 349. Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
- 350. This claim is brought by Plaintiffs on behalf of California purchasers who are members of the Class.
- 351. CAL. BUS. & PROF. CODE § 17500 states: "It is unlawful for any . . . corporation . . . with intent directly or indirectly to dispose of real or personal property . . . to induce the public to enter into any obligation relating thereto, to make or disseminate or cause to be made or disseminated . . . from this state before the public in any state, in any newspaper or other publication, or any advertising device, . . . or in any other manner or means whatever, including over the Internet, any statement . . . which is untrue or misleading, and which is known, or which by the exercise of reasonable care should be known, to be untrue or misleading." Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions

manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.

- 352. Ford caused to be made or disseminated through California and the United States, through advertising, marketing and other publications, statements that were untrue or misleading, and which were known, or which by the exercise of reasonable care should have been known to Ford, to be untrue and misleading to consumers, including Plaintiffs and the other Class members.
- 353. Ford has violated § 17500 because the misrepresentations and omissions regarding the functionality, reliability, environmental-friendliness, and lawfulness of Polluting Vehicles as set forth in this Complaint were material and likely to deceive a reasonable consumer.
- 354. Plaintiffs and the other Class members have suffered an injury in fact, including the loss of money or property, as a result of Ford's unfair, unlawful, and/or deceptive practices. In purchasing or leasing their Polluting Vehicles, Plaintiffs and the other Class members relied on the misrepresentations and/or omissions of Ford with respect to the functionality, reliability, environmental-friendliness, and lawfulness of the Polluting Vehicles. Ford's representations

Vehicles turns off or is limited during normal driving conditions and the Polluting Vehicles are distributed with Ford Clean Diesel engine systems that include defective emission controls and a "Defeat Device." Had Plaintiffs and the other Class members known this, they would not have purchased or leased their Polluting Vehicles and/or paid as much for them. Accordingly, Plaintiffs and the other Class members overpaid for their Polluting Vehicles.

- 355. All of the wrongful conduct alleged herein occurred, and continues to occur, in the conduct of Ford's business. Ford's wrongful conduct is part of a pattern or generalized course of conduct that is still perpetuated and repeated, both in the State of California and nationwide.
- 356. The facts concealed and omitted by Ford to Plaintiffs and the other Class members are material in that a reasonable consumer would have considered them to be important in deciding whether to purchase or lease the Polluting Vehicles or pay a lower price. Had Plaintiffs and the other Class members known of the higher emissions at the time they purchased or leased their Polluting Vehicles, they would not have purchased or leased those vehicles, or would have paid substantially less for the vehicles than they did.

- 357. Plaintiffs have provided Ford with notice of its violations of the CLRA pursuant to CAL. CIV. CODE § 1782(a). The notice was transmitted to Ford on January 5, 2018.
- 358. Plaintiffs' and the other Class members' injuries were proximately caused by Ford's fraudulent and deceptive business practices.
- 359. Therefore, Plaintiffs and the other Class members are entitled to equitable and monetary relief under the CLRA.
- 360. Plaintiffs, individually and on behalf of the other Class members, request that this Court enter such orders or judgments as may be necessary to restore to Plaintiffs and the other Class members any money Ford acquired by unfair competition, including restitution and/or restitutionary disgorgement, and for such other relief as may be appropriate.

# **COUNT 5**

# BREACH OF CONTRACT (BASED ON CALIFORNIA LAW)

- 361. Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
- 362. This claim is brought by Plaintiffs on behalf of California purchasers who are members of the Class.
- 363. Ford's misrepresentations and omissions alleged herein, including Ford's failure to disclose the existence of the Ford Clean Diesel engine system's

defect and/or defective design of the emission controls, caused Plaintiffs and the other Class members to make their purchases or leases of their Polluting Vehicles. Absent those misrepresentations and omissions, Plaintiffs and the other Class members would not have purchased or leased these Polluting Vehicles, would not have purchased or leased these Polluting Vehicles at the prices they paid, and/or would have purchased or leased less expensive alternative vehicles that did not contain the defective Ford Clean Diesel engine system and which were not marketed as including such a system. Accordingly, Plaintiffs and the other Class members overpaid for their Polluting Vehicles and did not receive the benefit of their bargain.

364. Each and every sale or lease of a Polluting Vehicle constitutes a contract between Ford and the purchaser or lessee. Ford breached these contracts by selling or leasing to Plaintiffs and the other Class members defective Polluting Vehicles and by misrepresenting or failing to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions and the existence of the Ford Clean Diesel engine system's defect and/or defective design of the emission controls, including information known to Ford, rendering each Polluting Vehicle non-EPA-compliant, and thus less valuable than vehicles not equipped with the defective Ford Clean Diesel engine system.

365. As a direct and proximate result of Ford's breach of contract,
Plaintiffs and the Class have been damaged in an amount to be proven at trial,
which shall include, but is not limited to, all compensatory damages, incidental and
consequential damages, and other damages allowed by law.

# COUNT 6

# FRAUDULENT CONCEALMENT (BASED ON CALIFORNIA LAW)

- 366. Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
- 367. This claim is brought by Plaintiffs on behalf of California purchasers who are members of the Class.
- 368. Ford intentionally concealed that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that the Polluting Vehicles had defective emission controls, emitted pollutants at a higher level than gasoline-powered vehicles, emitted pollutants higher than a reasonable consumer would expect in light of Ford's advertising campaign and the premium paid for the car, emitted high levels of pollutants such as NOx, and were non-compliant with EPA emission requirements, or Ford acted with reckless disregard for the truth and denied Plaintiffs and the other Class members information that is highly relevant to their purchasing decision.

- 369. Ford further affirmatively misrepresented to Plaintiffs in advertising and other forms of communication, including standard and uniform material provided with each car, that the Polluting Vehicles it was selling had no significant defects, were low emission vehicles, complied with EPA regulations, and would perform and operate properly when driven in normal usage.
  - 370. Ford knew these representations were false when made.
- 371. The Polluting Vehicles purchased or leased by Plaintiffs and the other Class members were, in fact, defective, emitting pollutants at a much higher rate than gasoline-powered vehicles and at a much higher rate than a reasonable consumer would expect in light of Ford's advertising campaign, non-EPA-compliant, and unreliable because the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions.
- 372. Ford had a duty to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions and that these Polluting Vehicles were defective, employed a "Defeat Device," emitted pollutants at a much higher rate than similar gasoline-powered vehicles, that the emissions far exceeded those expected by a reasonable consumer, were non-EPA-compliant and unreliable, because Plaintiffs and the other Class members relied on Ford's material representations or omissions of fact that the Polluting Vehicles

they were purchasing were reduced emission vehicles, efficient, and free from defects.

- 373. As alleged in this Complaint, at all relevant times, Ford has held out the Polluting Vehicles to be reduced emissions and EPA-compliant. Ford disclosed certain details about the Ford Clean Diesel engine, but nonetheless, Ford intentionally failed to disclose the important facts that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions and that the Polluting Vehicles had defective emission controls, deploy a "Defeat Device," emitted higher levels of pollutants than expected by a reasonable consumer, emitted high levels of pollutants, and were non-compliant with EPA emissions requirements, making other disclosures about the emission system deceptive.
- 374. The truth about the defective emission controls and Ford's manipulations of those controls, high emissions, the "Defeat Device," and non-compliance with EPA emissions requirements was known only to Ford; Plaintiffs and the Class members did not know of these facts and Ford actively concealed these facts from Plaintiffs and Class members.
- 375. Plaintiffs and Class members reasonably relied upon Ford's deception. They had no way of knowing that Ford's representations were false and/or misleading. As consumers, Plaintiffs and Class members did not, and could

not, unravel Ford's deception on their own. Rather, Ford intended to deceive Plaintiffs and Class members by concealing the true facts about the Polluting Vehicle emissions.

- 376. Ford also concealed and suppressed material facts concerning what is evidently the true culture of Ford—one characterized by an emphasis on profits and sales above compliance with federal and state clean air laws and emissions regulations that are meant to protect the public and consumers. It also emphasized profits and sales above the trust that Plaintiffs and Class members placed in its representations. Consumers buy diesel vehicles from Ford because they feel they are clean diesel vehicles. They do not want to be spewing noxious gases into the environment. And yet, that is precisely what the Polluting Vehicles are doing.
- 377. Ford's false representations were material to consumers, because they concerned the quality of the Polluting Vehicles, because they concerned compliance with applicable federal and state law and regulations regarding clean air and emissions, and also because the representations played a significant role in the value of the vehicles. As Ford well knew, its customers, including Plaintiffs and Class members, highly valued that the vehicles they were purchasing or leasing were fuel efficient, clean diesel vehicles with reduced emissions, and they paid accordingly.

378. Ford had a duty to disclose the emissions defect, defective design of the emission controls, and violations with respect to the Polluting Vehicles because details of the true facts were known and/or accessible only to Ford, because Ford had exclusive knowledge as to such facts, and because Ford knew these facts were not known to or reasonably discoverable by Plaintiffs or Class members. Ford also had a duty to disclose because it made general affirmative representations about the qualities of its vehicles with respect to emissions, starting with references to them as reduced emissions diesel vehicles and as compliant with all laws in each state, which were misleading, deceptive, and incomplete without the disclosure of the additional facts set forth above regarding the actual emissions of its vehicles, its actual philosophy with respect to compliance with federal and state clean air laws and emissions regulations, and its actual practices with respect to the vehicles at issue. Having volunteered to provide information to Plaintiffs and Class members, Ford had the duty to disclose not just the partial truth, but the entire truth. These omitted and concealed facts were material because they directly impact the value of the Polluting Vehicles purchased or leased by Plaintiffs and Class members. Whether a manufacturer's products pollute, comply with federal and state clean air laws and emissions regulations, and whether that manufacturer tells the truth with respect to such compliance or non-compliance are material concerns to a consumer, including with respect to the emissions certifications

testing their vehicles must pass. Ford represented to Plaintiffs and Class members that they were purchasing or leasing *reduced emission* diesel vehicles, when in fact, they were purchasing or leasing defective, high emission vehicles.

- 379. Ford actively concealed and/or suppressed these material facts, in whole or in part, to pad and protect its profits and to avoid the perception that its vehicles were not clean diesel vehicles and did not or could not comply with federal and state laws governing clean air and emissions, which perception would hurt the brand's image and cost Ford money, and it did so at the expense of Plaintiffs and Class members.
- 380. Ford has still not made full and adequate disclosures, and continues to defraud Plaintiffs and Class members by concealing material information regarding the emissions qualities of its referenced vehicles.
- 381. Plaintiffs and Class members were unaware of the omitted material facts referenced herein, and they would not have acted as they did if they had known of the concealed and/or suppressed facts, in that they would not have purchased purportedly reduced emissions diesel vehicles manufactured by Ford, and/or would not have continued to drive their heavily polluting vehicles, or would have taken other affirmative steps in light of the information concealed from them. Plaintiffs' and Class members' actions were justified. Ford was in exclusive

control of the material facts, and such facts were not generally known to the public, Plaintiffs, or Class members.

- 382. Because of the concealment and/or suppression of the facts, Plaintiffs and Class members have sustained damage because they own vehicles that are diminished in value as a result of Ford's concealment of the true quality and quantity of those vehicles' emissions and Ford's failure to timely disclose the defect or defective design of the Ford Clean Diesel engine system, the actual emissions qualities and quantities of Ford-branded vehicles, and the serious issues engendered by Ford's corporate policies. Had Plaintiffs and Class members been aware of the true emissions facts with regard to the Polluting Vehicles, and the Company's disregard for the truth and compliance with applicable federal and state law and regulations, Plaintiffs and Class members who purchased or leased new or certified previously owned vehicles would have paid less for their vehicles or would not have purchased or leased them at all.
- 383. The value of Plaintiffs' and Class members' vehicles has diminished as a result of Ford's fraudulent concealment of the defective emission controls of the Polluting Vehicles, and of the high emissions of the Polluting Vehicles, and of the non-compliance with EPA emissions requirements, all of which has greatly tarnished the Ford brand name attached to Plaintiffs' and Class members' vehicles and made any reasonable consumer reluctant to purchase any of the Polluting

Vehicles, let alone pay what otherwise would have been fair market value for the vehicles.

- 384. Accordingly, Ford is liable to Plaintiffs and Class members for damages in an amount to be proven at trial.
- 385. Ford's acts were done wantonly, maliciously, oppressively, deliberately, with intent to defraud, and in reckless disregard of Plaintiffs' and Class members' rights and the representations that Ford made to them in order to enrich Ford. Ford's conduct warrants an assessment of punitive damages in an amount sufficient to deter such conduct in the future, which amount is to be determined according to proof.

# COUNT 7

# VIOLATION OF THE ILLINOIS CONSUMER FRAUD AND DECEPTIVE BUSINESS PRACTICES ACT (815 ILCS 505/1, ET SEQ. AND 720 ILCS 295/1A)

- 386. Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
  - 387. This claim is brought on behalf of the Illinois Class members.
  - 388. Ford is a "person" as that term is defined in 815 ILCS 505/1(c).
- 389. Plaintiffs and the Class members are "consumers" as that term is defined in 815 ILCS 505/1(e).
- 390. The Illinois Consumer Fraud and Deceptive Business Practices Act ("Illinois CFA") prohibits "unfair or deceptive acts or practices, including but not

limited to the use or employment of any deception, fraud, false pretense, false promise, misrepresentation or the concealment, suppression or omission of any material fact, with intent that others rely upon the concealment, suppression or omission of such material fact ... in the conduct of trade or commerce ... whether any person has in fact been misled, deceived or damaged thereby." 815 ILCS 505/2.

391. In the course of Ford's business, it willfully failed to disclose and actively concealed that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that the Polluting Vehicles emitted far more pollutants than gasoline powered vehicles, that the Polluting Vehicles emit far more pollution than a reasonable consumer would expect in light of Ford's advertising campaign, and that the Polluting Vehicles emitted unlawfully high levels of pollutants, including NOx, as described above. Accordingly, Ford engaged in unfair or deceptive acts or practices, including but not limited to the use or employment of any deception, fraud, false pretense, false promise, misrepresentation or the concealment, suppression or omission of any material fact, with intent that others rely upon the concealment, suppression or omission of such material fact in the conduct of trade or commerce as prohibited by the Illinois CFA.

- 392. In purchasing or leasing the Polluting Vehicles, Plaintiffs and the other Class members were deceived by Ford's failure to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that the emission controls were defective, and that the Polluting Vehicles emitted unlawfully high levels of pollutants, including NOx, as described above.
- 393. Plaintiffs and Class members reasonably relied upon Ford's false misrepresentations. They had no way of knowing that Ford's representations were false and gravely misleading. As alleged herein, Ford engaged in extremely sophisticated methods of deception. Plaintiffs and Class members did not, and could not, unravel Ford's deception on their own.
- 394. Ford's actions as set forth above occurred in the conduct of trade or commerce.
- 395. Ford's unfair or deceptive acts or practices were likely to and did in fact deceive reasonable consumers.
- 396. Ford intentionally and knowingly misrepresented material facts regarding the Polluting Vehicles with an intent to mislead Plaintiffs and the Class.
- 397. Ford knew or should have known that its conduct violated the Illinois CFA.

- 398. Ford owed Plaintiffs and the Class a duty to disclose the truth about its emissions systems manipulation because Ford:
  - a. Possessed exclusive knowledge that it manipulated the emissions system in the Polluting Vehicles to turn off or limit effectiveness in normal driving conditions;
  - b. Intentionally concealed the foregoing from Plaintiffs and the Class; and/or
  - c. Made incomplete representations that it manipulated the emissions system in the Polluting Vehicles to turn off or limit effectiveness in normal driving conditions, while purposefully withholding material facts from Plaintiffs and the Class that contradicted these representations.
- 399. Ford had a duty to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that these Polluting Vehicles were defective, employed a "Defeat Device," and emitted pollutants at a much higher rate than gasoline powered vehicles, and that the emissions far exceeded those expected by a reasonable consumer, were non-EPA-compliant and unreliable, because Plaintiffs and the other Class members relied on Ford's material representations that the Polluting Vehicles they were purchasing were reduced emission vehicles, efficient, and free from defects.
- 400. Ford's conduct proximately caused injuries to Plaintiffs and the other Class members.
- 401. Plaintiffs and the other Class members were injured and suffered ascertainable loss, injury-in-fact, and/or actual damage as a proximate result of

Ford's conduct in that Plaintiffs and the other Class members overpaid for their Polluting Vehicles and did not receive the benefit of their bargain, and their Polluting Vehicles have suffered a diminution in value. These injuries are the direct and natural consequence of Ford's misrepresentations and omissions.

- 402. Ford's violations present a continuing risk to Plaintiffs as well as to the general public. Ford's unlawful acts and practices complained of herein affect the public interest.
- 403. Pursuant to 815 ILCS 505/10a(a), Plaintiffs and the Class members seek monetary relief against Ford in the amount of actual damages, as well as punitive damages because Ford acted with fraud and/or malice and/or was grossly negligent.
- 404. Plaintiffs also seek punitive damages, attorneys' fees, and any other just and proper relief available under 815 ILCS § 505/1, *et seq*. A copy of this Complaint has been mailed to the Attorney General of the State of Illinois in accordance with 815 ILCS 505/10a(d).

### **COUNT 8**

# BREACH OF CONTRACT (BASED ON ILLINOIS LAW)

- 405. Plaintiffs incorporate by reference all preceding allegations as though fully set forth herein.
  - 406. Plaintiffs bring this Count on behalf of the Illinois Class.

- 407. Ford's misrepresentations and omissions alleged herein, including Ford's failure to disclose the existence of the Ford Clean Diesel engine system's defect and/or defective design of the emission controls as alleged herein, caused Plaintiffs and the other Class members to make their purchases or leases of their Polluting Vehicles. Absent those misrepresentations and omissions, Plaintiffs and the other Class members would not have purchased or leased these Polluting Vehicles, would not have purchased or leased these Polluting Vehicles at the prices they paid, and/or would have purchased or leased less expensive alternative vehicles that did not contain the defective Ford Clean Diesel engine system and which were not marketed as including such a system. Accordingly, Plaintiffs and the other Class members overpaid for their Polluting Vehicles and did not receive the benefit of their bargain.
- 408. Each and every sale or lease of a Polluting Vehicle constitutes a contract between Ford and the purchaser or lessee. Ford breached these contracts by selling or leasing to Plaintiffs and the other Class members defective Polluting Vehicles and by misrepresenting or failing to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions and the existence of the Ford Clean Diesel engine system's defect and/or defective design of the emission controls, including information known to Ford, rendering each Polluting Vehicle non-EPA-compliant, and that they were

thus less valuable than vehicles not equipped with the defective Ford Clean Diesel engine system.

409. As a direct and proximate result of Ford's breach of contract,

Plaintiffs and the Class have been damaged in an amount to be proven at trial,

which shall include, but is not limited to, all compensatory damages, incidental and
consequential damages, and other damages allowed by law.

# COUNT 9

# FRAUDULENT CONCEALMENT (BASED ON ILLINOIS LAW)

- 410. Plaintiffs incorporate by reference all preceding allegations as though fully set forth herein.
  - 411. This claim is brought on behalf of the Illinois Class.
- 412. Ford intentionally concealed that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that the Polluting Vehicles had defective emission controls, emitted pollutants at a higher level than gasoline powered vehicles, emitted pollutants higher than a reasonable consumer would expect in light of Ford's advertising campaign, emitted unlawfully high levels of pollutants such as NOx, and were non-compliant with EPA emission requirements, or Ford acted with reckless disregard for the truth, and denied Plaintiffs and the other Class members information that is highly relevant to their purchasing decision.

- 413. Ford further affirmatively misrepresented to Plaintiffs in advertising and other forms of communication, including standard and uniform material provided with each car, that the Polluting Vehicles it was selling had no significant defects, were Earth-friendly and low emission vehicles, complied with EPA regulations, and would perform and operate properly when driven in normal usage.
  - 414. Ford knew these representations were false when made.
- 415. The Polluting Vehicles purchased or leased by Plaintiffs and the other Class members were, in fact, defective, emitting pollutants at a much higher rate than gasoline powered vehicles and at a much higher rate than a reasonable consumer would expect in light of Ford's advertising campaign, non-EPA-compliant, and unreliable because the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions.
- 416. Ford had a duty to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that these Polluting Vehicles were defective, employed a "Defeat Device," and emitted pollutants at a much higher rate than gasoline powered vehicles, and that the emissions far exceeded those expected by a reasonable consumer, were non-EPA-compliant and unreliable, because Plaintiffs and the other Class members relied on Ford's material representations that the Polluting Vehicles they were purchasing were reduced emission vehicles, efficient, and free from defects.

- 417. As alleged in this Complaint, at all relevant times, Ford has held out the Polluting Vehicles to be reduced emissions, EPA-compliant vehicles. Ford disclosed certain details about the Ford Clean Diesel engine, but nonetheless, Ford intentionally failed to disclose the important facts that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, and that the Polluting Vehicles had defective emission controls, deploy a "Defeat Device," emitted higher levels of pollutants than expected by a reasonable consumer, emitted unlawfully high levels of pollutants, and were non-compliant with EPA emissions requirements, making other disclosures about the emission system deceptive.
- 418. The truth about the defective emission controls and Ford's manipulations of those controls, unlawfully high emissions, the "Defeat Device," and non-compliance with EPA emissions requirements was known only to Ford; Plaintiffs and the Class members did not know of these facts and Ford actively concealed these facts from Plaintiffs and Class members.
- 419. Plaintiffs and Class members reasonably relied upon Ford's deception. They had no way of knowing that Ford's representations were false and/or misleading. As consumers, Plaintiffs and Class members did not, and could not, unravel Ford's deception on their own. Rather, Ford intended to deceive

Plaintiffs and Class members by concealing the true facts about the Polluting Vehicle emissions.

- 420. Ford also concealed and suppressed material facts concerning what is evidently the true culture of Ford—one characterized by an emphasis on profits and sales above compliance with federal and state clean air laws and emissions regulations that are meant to protect the public and consumers. It also emphasized profits and sales above the trust that Plaintiffs and Class members placed in its representations. Consumers buy diesel vehicles from Ford because they feel they are clean diesel vehicles. They do not want to be spewing noxious gases into the environment. And yet, that is precisely what the Polluting Vehicles are doing.
- 421. Ford's false representations were material to consumers, because they concerned the quality of the Polluting Vehicles, because they concerned compliance with applicable federal and state law and regulations regarding clean air and emissions, and also because the representations played a significant role in the value of the vehicles. As Ford well knew, its customers, including Plaintiffs and Class members, highly valued that the vehicles they were purchasing or leasing were fuel efficient, clean diesel vehicles with reduced emissions, and they paid accordingly.
- 422. Ford had a duty to disclose the emissions defect, defective design of the emission controls, and violations with respect to the Polluting Vehicles because

details of the true facts were known and/or accessible only to Ford, because Ford had exclusive knowledge as to such facts, and because Ford knew these facts were not known to or reasonably discoverable by Plaintiffs or Class members. Ford also had a duty to disclose because it made general affirmative representations about the qualities of its vehicles with respect to emissions, starting with references to them as reduced emissions diesel vehicles and as compliant with all laws in each state, which were misleading, deceptive, and incomplete without the disclosure of the additional facts set forth above regarding the actual emissions of its vehicles, its actual philosophy with respect to compliance with federal and state clean air laws and emissions regulations, and its actual practices with respect to the vehicles at issue. Having volunteered to provide information to Plaintiffs and Class members, Ford had the duty to disclose not just the partial truth, but the entire truth. These omitted and concealed facts were material because they directly impact the value of the Polluting Vehicles purchased or leased by Plaintiffs and Class members. Whether a manufacturer's products pollute, comply with federal and state clean air laws and emissions regulations, and whether that manufacturer tells the truth with respect to such compliance or non-compliance, are material concerns to a consumer, including with respect to the emissions certifications testing their vehicles must pass. Ford represented to Plaintiffs and Class members that they were purchasing or leasing reduced emission diesel vehicles, when in

fact, they were purchasing or leasing defective, high emission, and unlawfully high emission vehicles.

- 423. Ford actively concealed and/or suppressed these material facts, in whole or in part, to pad and protect its profits and to avoid the perception that its vehicles were not clean diesel vehicles and did not or could not comply with federal and state laws governing clean air and emissions, which perception would hurt the brand's image and cost Ford money, and it did so at the expense of Plaintiffs and Class members.
- 424. Ford has still not made full and adequate disclosures, and continues to defraud Plaintiffs and Class members by concealing material information regarding the emissions qualities of its referenced vehicles.
- 425. Plaintiffs and Class members were unaware of the omitted material facts referenced herein, and they would not have acted as they did if they had known of the concealed and/or suppressed facts, in that they would not have purchased purportedly reduced emissions diesel vehicles manufactured by Ford, and/or would not have continued to drive their heavily polluting vehicles, or would have taken other affirmative steps in light of the information concealed from them. Plaintiffs' and Class members' actions were justified. Ford was in exclusive control of the material facts, and such facts were not generally known to the public, Plaintiffs, or Class members.

- 426. Because of the concealment and/or suppression of the facts, Plaintiffs and Class members have sustained damage because they own vehicles that are diminished in value as a result of Ford's concealment of the true quality and quantity of those vehicles' emissions and Ford's failure to timely disclose the defect or defective design of the Ford Clean Diesel engine system, the actual emissions qualities and quantities of Ford-branded vehicles, and the serious issues engendered by Ford's corporate policies. Had Plaintiffs and Class members been aware of the true emissions facts with regard to the Polluting Vehicles, and the Company's disregard for the truth and compliance with applicable federal and state law and regulations, Plaintiffs and Class members who purchased or leased new or certified previously owned vehicles would have paid less for their vehicles or would not have purchased or leased them at all.
- 427. The value of Plaintiffs' and Class members' vehicles has diminished as a result of Ford's fraudulent concealment of the defective emission controls of the Polluting Vehicles, of the unlawfully high emissions of the Polluting Vehicles, and of the non-compliance with EPA emissions requirements, all of which has greatly tarnished the Ford brand name attached to Plaintiffs' and Class members' vehicles and made any reasonable consumer reluctant to purchase any of the Polluting Vehicles, let alone pay what otherwise would have been fair market value for the vehicles.

- 428. Accordingly, Ford is liable to Plaintiffs and Class members for damages in an amount to be proven at trial.
- 429. Ford's acts were done wantonly, maliciously, oppressively, deliberately, with intent to defraud, and in reckless disregard of Plaintiffs' and Class members' rights and the representations that Ford made to them, in order to enrich Ford. Ford's conduct warrants an assessment of punitive damages in an amount sufficient to deter such conduct in the future, which amount is to be determined according to proof.

### COUNT 10

# VIOLATION OF THE PENNSYLVANIA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION LAW (73 PA. CONS. STAT. § 201-1 ET SEQ.)

- 430. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 431. This claim is brought by Plaintiffs on behalf of Pennsylvania purchasers who are members of the Class.
- 432. The Pennsylvania Unfair Trade Practices and Consumer Protection
  Law (Pennsylvania CPL) prohibits unfair or deceptive acts or practices, including
  representing that goods or services have characteristics, benefits or qualities that
  they do not have; representing that goods or services are of a particular standard,
  quality or grade if they are of another; advertising goods or services with intent not
  to sell them as advertised; and engaging in any other fraudulent or deceptive

conduct which creates a likelihood of confusion or misunderstanding. 73 P.S. § 201-2(4).

- 433. Ford, Plaintiffs, and Pennsylvania Class members are "persons" within the meaning of 73 PA. CONS. STAT. § 201-2(2).
- 434. Plaintiffs purchased or leased Polluting Vehicles primarily for personal, family, or household purposes within the meaning of 73 PA. CONS. STAT. § 201-9.2.
- 435. All of the acts complained of herein were perpetrated by Ford in the course of trade or commerce within the meaning of 73 PA. CONS. STAT. § 201-2(3).
- 436. Ford is liable to Plaintiffs for treble their actual damages or \$100, whichever is greater, and attorneys' fees and costs. 73 PA. CONS. STAT. § 201-9.2(a). Plaintiffs are also entitled to an award of punitive damages given that Ford's conduct was malicious, wanton, willful, oppressive, or exhibited a reckless indifference to the rights of others.

### COUNT 11

# VIOLATIONS OF THE TEXAS DECEPTIVE TRADE PRACTICES AND CONSUMER PROTECTION ACT (TEX. BUS. & COM. CODE § 17.4 ET SEQ.)

- 437. Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
- 438. This claim is brought by Plaintiffs on behalf of Texas purchasers who are members of the Class.

- 439. Plaintiffs and the Texas Class members are individuals with assets of less than \$25 million (or are controlled by corporations or entities with less than \$25 million in assets). *See* Tex. Bus. & Com. Code § 17.41.
- 440. The Texas Deceptive Trade Practices-Consumer Protection Act ("Texas DTPA") provides a private right of action to a consumer where the consumer suffers economic damage as the result of either (i) the use of false, misleading, or deceptive act or practice specifically enumerated in TEX. BUS. & COM. CODE § 17.46(b); or (ii) "an unconscionable action or course of action by any person." TEX. BUS. & COM. CODE § 17.50(a)(2) & (3). The Texas DTPA declares several specific actions to be unlawful, including: "(5) Representing that goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, or qualities that they do not have"; "(7) Representing that goods or services are of a particular standard, quality, or grade, or that goods are of a particular style or model, if they are of another"; and "(9) advertising goods or services with intent not to sell them as advertised." An "unconscionable action or course of action" means "an act or practice which, to a consumer's detriment, takes advantage of the lack of knowledge, ability, experience, or capacity of the consumer to a grossly unfair degree." TEX. BUS. & COM. CODE § 17.45(5). As detailed herein, Ford has engaged in an unconscionable action or course of action and thereby caused economic damages to the Texas Class.

- 441. In the course of business, Ford willfully failed to disclose and actively concealed the conduct discussed herein and otherwise engaged in activities with a tendency or capacity to deceive. Ford also engaged in unlawful trade practices by employing deception, deceptive acts or practices, fraud, misrepresentations, or concealment, suppression, or omission of any material fact with intent that others rely upon such concealment, suppression, or omission, in connection with the sale of Polluting Vehicles.
- 442. Ford's unfair or deceptive acts or practices were likely to and did in fact deceive reasonable consumers, including Plaintiffs and the other Texas Class members, about the true performance of the Polluting Vehicles, the devaluing of the environmental impacts of its vehicles at Ford, and the true value of the Polluting Vehicles.
- 443. Ford intentionally and knowingly misrepresented material facts regarding the Polluting Vehicles with intent to mislead Plaintiffs and the Texas Class.
- 444. Ford knew or should have known that their conduct violated the Texas DTPA.
- 445. Ford owed Plaintiffs and Texas Class members a duty to disclose the true environmental impact, performance, fuel mileage, and reliability of the Polluting Vehicles, because Ford:

- a. Possessed exclusive knowledge that they were selling and distributing Polluting Vehicles throughout the United States that did not perform as advertised;
- b. Intentionally concealed the foregoing from Plaintiffs and the Texas Class; and/or
- c. Made incomplete representations about the environmental friendliness, fuel mileage, towing capacity, and performance of the Polluting Vehicles while purposefully withholding material facts from Plaintiffs and the Texas Class that contradicted these representations.
- 446. Because Ford fraudulently concealed the defective emissions treatment system, the value of the Polluting Vehicles has greatly diminished. In light of the stigma attached to the Polluting Vehicles by Ford's conduct, they are now worth significantly less than they otherwise would be.
- 447. Ford's omissions and/or misrepresentations about the emissions treatment system of the Polluting Vehicles were material to Plaintiffs and the Texas Class.
- 448. Plaintiffs and the Texas Class suffered ascertainable loss caused by Ford's misrepresentations and their concealment of and failure to disclose material information. Class members who purchased the Polluting Vehicles either would have paid less for their vehicles or would not have purchased or leased them at all but for Ford's violations of the Texas DTPA.
- 449. Ford had an ongoing duty to all Ford customers to refrain from unfair and deceptive practices under the Texas DTPA. All owners of Polluting Vehicles

suffered ascertainable loss in the form of the diminished value of their vehicle as a result of Ford's deceptive and unfair acts and practices made in the course of Ford's business.

- 450. Ford's violations present a continuing risk to Plaintiffs as well as to the general public. Ford's unlawful acts and practices complained of herein affect the public interest.
- 451. As a direct and proximate result of Ford's violations of the Texas DTPA, Plaintiffs and the Texas Class have suffered injury-in-fact and/or actual damage.
- 452. On January 5, 2018, Plaintiffs sent a letter complying with TEX. BUS. & COM. CODE ANN. § 17.505 to Ford.
- 453. Plaintiffs seek monetary relief against Ford measured as actual damages in an amount to be determined at trial, treble damages for Ford's knowing violations of the Texas DTPA, and any other just and proper relief available under the Texas DTPA.
- 454. Alternatively, or additionally, pursuant to TEX. BUS. & COM. CODE § 17.50(b)(3) & (4), Plaintiffs are also entitled to disgorgement or to rescission or to any other relief necessary to restore any money or property that was acquired from them based on violations of the Texas DTPA or which the Court deems proper.

# C. Claims brought on behalf of the other state classes

# COUNT 12

# VIOLATION OF THE ALABAMA DECEPTIVE TRADE PRACTICES ACT (ALA. CODE § 8-19-1 ET SEQ.)

- 455. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 456. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend their complaint to bring this claim on behalf of Alabama purchasers who are members of the Class.
- 457. The Alabama Deceptive Trade Practices Act (Alabama DTPA) declares several specific actions to be unlawful, including: "engaging in any other unconscionable, false, misleading, or deceptive act or practice in the conduct of trade or commerce." ALA. CODE § 8-19-5.
- 458. Plaintiffs and Alabama Class members are "consumers" within the meaning of ALA. CODE. § 8-19-3(2).
- 459. Plaintiffs, Alabama Class members, and Ford are "persons" within the meaning of ALA. CODE § 8-19-3(3).
- 460. Ford was and is engaged in "trade or commerce" within the meaning of ALA. CODE § 8-19-3(8).
- 461. Pursuant to Alabama Code § 8-19-10, Plaintiffs will amend to seek monetary relief against Ford measured as the greater of (a) actual damages in an

amount to be determined at trial and (b) statutory damages in the amount of \$100 for each plaintiff.

- 462. Plaintiffs also will amend to seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, attorneys' fees, and any other just and proper relief available under ALA. CODE. § 8-19-1 *et seq*.
- 463. On January5, 2018, Plaintiffs sent a letter complying with ALA. CODE § 8-19-10(e) to Ford. Should Ford fail to remedy its unlawful conduct within the requisite period, Plaintiffs will amend to seek all damages and relief to which they are entitled.

### **COUNT 13**

# VIOLATION OF THE ALASKA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION ACT (ALASKA STAT. ANN. § 45.50.471 ET SEQ.)

- 464. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 465. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend their complaint to bring this claim on behalf of Alaska purchasers who are members of the Class.
- 466. The Alaska Unfair Trade Practices and Consumer Protection Act (Alaska CPA) declared unfair methods of competition and unfair or deceptive acts or practices in the conduct of trade or commerce unlawful, including "using or employing deception, fraud, false pretense, false promise, misrepresentation, or

knowingly concealing, suppressing, or omitting a material fact with intent that others rely upon the concealment, suppression or omission in connection with the sale or advertisement of goods or services whether or not a person has in fact been misled, deceived or damaged." Alaska Stat. Ann. § 45.50.471.

- 467. Pursuant to Alaska Stat Ann. § 45.50.531, Plaintiffs will amend their Complaint to seek monetary relief against Ford measured as the greater of (a) three times the actual damages in an amount to be determined at trial or (b) \$500 for each plaintiff.
- 468. Plaintiffs also will amend to seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices pursuant to ALASKA STAT. ANN. § 45.50.535(b)(1), attorneys' fees, and any other just and proper relief available under the Alaska CPA.
- 469. On January 5, 2018, Plaintiffs sent a letter complying with ALASKA STAT. ANN. § 45.50.535(b)(1) to Ford.

### COUNT 14

# VIOLATION OF THE ARKANSAS DECEPTIVE TRADE PRACTICES ACT (ARK. CODE ANN. § 4-88-101 ET SEQ.)

- 470. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 471. This claim is brought by Plaintiffs on behalf of Arkansas purchasers who are members of the class.

- 472. The Arkansas Deceptive Trade Practices Act (Arkansas DTPA) prohibits "[d]eceptive and unconscionable trade practices," which include but are not limited to "[e]ngaging in any . . . unconscionable false, or deceptive act or practice in business, commerce, or trade." ARK. CODE. ANN. § 4-88-107(a)(10). The Arkansas DTPA also prohibits, in connection with the sale or advertisement of any goods, "(1) the act, use, or employment by any person of any deception, fraud, or pretense; or (2) the concealment, suppression, or omission of any material fact with intent that other rely upon the concealment, suppression, or omission." ARK CODE. ANN. § 4-88-108. Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.
- 473. Ford, Plaintiffs, and Class members are "persons" within the meaning of ARK. CODE. ANN. § 4-88-102(5).
- 474. Each Polluting Vehicle at issue constitutes "goods" within the meaning of ARK. CODE ANN. § 4-88-102(4).

- 475. Plaintiffs seek monetary relief against Ford in an amount to be determined at trial. Plaintiffs also seek punitive damages because Ford acted wantonly in causing Plaintiffs' and Class members' injuries, or with such a conscious indifference to the consequences that malice may be inferred.
- 476. Plaintiffs also seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, attorneys' fees, and any other just and proper relief available under the Arkansas DTPA.

### COUNT 15

# VIOLATION OF THE COLORADO CONSUMER PROTECTION ACT (COLO. REV. STAT. § 6-1-101 *ET SEQ.*)

- 477. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 478. This claim is brought by Plaintiffs on behalf of Colorado purchasers who are members of the Class.
- 479. The Colorado Consumer Protection Act (Colorado CPA) prohibits deceptive practices in the course of a person's business, including but not limited to "fail[ing] to disclose material information concerning goods, services, or property which information was known at the time of an advertisement or sale if such failure to disclose such information was intended to induce the consumer to enter into a transaction." Colo. Rev. Stat. § 6-1-105.
  - 480. Ford is a "person" under Colo. Rev. Stat. § 6-1-102(6).

- 481. Plaintiffs and Colorado Class members are "consumers" for purposes of Col. Rev. Stat § 6-1-113(1)(a).
- 482. Ford's conduct, as set forth above, occurred in the conduct of trade or commerce.
- 483. Pursuant to Colo. Rev. Stat. § 6-1-113, Plaintiffs seek monetary relief against Ford measured as the greater of (a) actual damages in an amount to be determined at trial and discretionary trebling of such damages, or (b) statutory damages in the amount of \$500 for each plaintiff or class member.
- 484. Plaintiffs also seek an order enjoining Ford's unfair, unlawful, or deceptive practices, declaratory relief, attorneys' fees, and any other just and proper remedy under the Colorado CPA.

#### COUNT 16

# VIOLATION OF THE CONNECTICUT UNFAIR TRADE PRACTICES ACT (CONN. GEN. STAT. § 42-110A ET SEQ.)

- 485. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 486. This claim is brought by Plaintiffs on behalf of Connecticut purchasers who are members of the Class.
- 487. The Connecticut Unfair Trade Practices Act (Connecticut UTPA) provides: "No person shall engage in unfair methods of competition and unfair or

deceptive acts or practices in the conduct of any trade or commerce." CONN. GEN. STAT. § 42-110b(a).

- 488. Plaintiffs, Connecticut Class members, and Ford are each a "person" within the meaning of CONN. GEN. STAT. § 42-110a(3).
- 489. Ford's challenged conduct occurred in "trade" or "commerce" within the meaning of CONN. GEN. STAT. § 42-110a(4).
- 490. Plaintiffs and Connecticut Class members are entitled to recover their actual damages, punitive damages, and attorneys' fees pursuant to CONN. GEN. STAT. § 42-110g.
- 491. Ford acted with reckless indifference to another's rights, or wanton or intentional violation of another's rights, and otherwise engaged in conduct amounting to a particularly aggravated, deliberate disregard for the rights of others. Therefore, punitive damages are warranted.

### **COUNT 17**

# VIOLATION OF THE DELAWARE CONSUMER FRAUD ACT (DEL. CODE TIT. 6, § 2513 ET SEQ.)

- 492. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 493. This claim is brought by Plaintiffs on behalf of Delaware purchasers who are members of the Class.

- 494. The Delaware Consumer Fraud Act (Delaware CFA) prohibits the "act, use, or employment by any person of any deception, fraud, false pretense, false promise, misrepresentation, or the concealment, suppression, or omission of any material fact with intent that others rely upon such concealment, suppression, or omission, in connection with the sale, lease or advertisement of any merchandise, whether or nor any person has in fact been misled, deceived, or damaged thereby." DEL. CODE TIT. 6, § 2513(a).
  - 495. Ford is a "person" within the meaning of DEL. CODE TIT. 6, § 2511(7).
- 496. Ford's actions, as set forth above, occurred in the conduct of trade or commerce.
- 497. Plaintiffs seek damages under the Delaware CFA for injury resulting from the direct and natural consequences of Ford's unlawful conduct. *See, e.g.*, *Stephenson v. Capano Dev., Inc.*, 462 A.2d 1069, 1077 (Del. 1980). Plaintiffs also seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, declaratory relief, attorneys' fees, and any other just and proper relief available under the Delaware CFA.
- 498. Ford engaged in gross, oppressive, or aggravated conduct justifying the imposition of punitive damages.

#### VIOLATION OF THE GEORGIA FAIR BUSINESS PRACTICES ACT (GA. CODE ANN. § 10-1-390 ET SEQ.)

- 499. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 500. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend their complaint to bring this claim on behalf of Georgia purchasers who are members of the Class.
- 501. The Georgia Fair Business Practices Act (Georgia FBPA) declares "[u]nfair or deceptive acts or practices in the conduct of consumer transactions and consumer acts or practices in trade or commerce" to be unlawful, GA. CODE. ANN. § 101-393(b), including but not limited to "representing that goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, or quantities that they do not have"; "[r]epresenting that goods or services are of a particular standard, quality, or grade . . . if they are of another"; and "[a]dvertising goods or services with intent not to sell them as advertised." GA. CODE. ANN. § 10-1-393(b).
- 502. Plaintiffs and Georgia Class members are "consumers" within the meaning of GA. CODE. ANN. § 10-1-393(b).
- 503. Ford engaged in "trade or commerce" within the meaning of GA. CODE. ANN. § 10-1-393(b).

- 504. Once the statutory notice period has expired, Plaintiffs will amend to seek damages and exemplary damages (for intentional violations) per GA. CODE.

  ANN. § 10-1-399(a).
- 505. Plaintiffs will also amend to seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, attorneys' fees, and any other just and proper relief available under the Georgia FBPA per GA. CODE. ANN. § 10-1-399.
- 506. On January 5, 2018, Plaintiffs sent a letter complying with GA. CODE ANN. § 10-1-399(b) to Ford.

# VIOLATION OF THE GEORGIA UNIFORM DECEPTIVE TRADE PRACTICES ACT (GA. CODE. ANN § 10-1-370 ET SEQ.)

- 507. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 508. This claim is brought by Plaintiffs on behalf of Georgia purchasers who are members of the Class.
- 509. Georgia's Uniform Deceptive Trade Practices Act (Georgia UDTPA) prohibits "deceptive trade practices," which include "representing that goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, or quantities that they do not have"; "[r]epresenting that goods or services are of a particular standard, quality, or grade . . . if they are of another"; and "[a]dvertising

goods or services with intent not to sell them as advertised." GA. CODE ANN. § 10-1-393(b).

- 510. Ford, Plaintiffs, and Georgia Class members are "persons" within the meaning of GA. CODE ANN. § 10-1-371(5).
- 511. The Plaintiffs seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, attorneys' fees, and any other just and proper relief available under GA. CODE ANN. § 10-1-373.

#### COUNT 20

### VIOLATION OF THE HAWAII ACT § 480-2(A) (HAW. REV. STAT. § 480 ET SEQ.)

- 512. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 513. This claim is brought by Plaintiffs on behalf of Hawaii purchasers who are members of the Class.
- 514. HAWAII REV. STAT. § 480-2(a) prohibits "unfair methods of competition and unfair or deceptive acts or practices in the conduct of any trade or commerce."
  - 515. Ford is a "person" under HAW. REV. STAT. § 480-1.
- 516. Plaintiffs and Hawaii Class members are "consumer[s]" as defined by HAW. REV. STAT. § 480-1, who purchased or leased the Polluting Vehicles at issue.

- 517. Pursuant to HAW. REV. STAT. § 480-13, Plaintiffs seek monetary relief against Ford measured as the greater of (a) \$1,000 and (b) threefold actual damages in an amount to be determined at trial.
- 518. Under HAW. REV. STAT. § 480-13.5, Plaintiffs seek an additional award against Ford of up to \$10,000 for each violation directed at a Hawaii elder. Ford knew or should have known that its conduct was directed to one or more Plaintiffs who are elders. Ford's conduct caused one or more of these elders to suffer a substantial loss of property set aside for retirement or for personal or family care and maintenance, or assets essential to the health or welfare of the elder. Plaintiffs who are elders are substantially more vulnerable to Ford's conduct because of age, poor health or infirmity, impaired understanding, restricted mobility, or disability, and each of them suffered a substantial physical, emotional, or economic damage resulting from Ford's conduct.

## VIOLATION OF THE IDAHO CONSUMER PROTECTION ACT (IDAHO CODE ANN. § 48-601 ET SEQ.)

- 519. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 520. This claim is brought by Plaintiffs on behalf of Idaho purchasers who are members of the Class.

- 521. The Idaho Consumer Protection Act (Idaho CPA) prohibits deceptive business practices, including but not limited to (1) representing that the Polluting Vehicles have characteristics, uses, and benefits which they do not have; (2) representing that the Polluting Vehicles are of a particular standard, quality, and grade when they are not; (3) advertising the Polluting Vehicles with the intent not to sell them as advertised; (4) engaging in acts or practices which are otherwise misleading, false, or deceptive to the consumer; and (5) engaging in any unconscionable method, act or practice in the conduct of trade or commerce. *See* IDAHO CODE ANN. § 48-603.
  - 522. Ford is a "person" under IDAHO CODE ANN. § 48-602(1).
- 523. Ford's acts or practices as set forth above occurred in the conduct of "trade" or "commerce" under IDAHO CODE ANN. § 48-602(2).
- 524. Pursuant to IDAHO CODE ANN. § 48-608, Plaintiffs seek monetary relief against Ford measured as the greater of (a) actual damages in an amount to be determined at trial and (b) statutory damages in the amount of \$1,000 for each plaintiff.
- 525. Plaintiffs also seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, attorneys' fees, and any other just and proper relief available under the Idaho CPA.

526. Plaintiffs also seek punitive damages against Ford because its conduct evidences an extreme deviation from reasonable standards. Ford's unlawful conduct constitutes malice, oppression, and fraud warranting punitive damages.

#### COUNT 22

#### VIOLATION OF THE INDIANA DECEPTIVE CONSUMER SALES ACT (IND. CODE § 24-5-0.5-3)

- 527. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 528. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend their complaint to bring this claim on behalf of Indiana purchasers who are members of the Class.
- 529. Indiana's Deceptive Consumer Sales Act (Indiana DCSA) prohibits a person from engaging in a "deceptive business practice[s]" or acts, including but not limited to "(1) That such subject of a consumer transaction has sponsorship, approval, performance, characteristics, accessories, uses, or benefits that they do not have, or that a person has a sponsorship, approval, status, affiliation, or connection it does not have; (2) That such subject of a consumer transaction is of a particular standard, quality, grade, style or model, if it is not and if the supplier knows or should reasonably know that it is not; . . . (7) That the supplier has a sponsorship, approval or affiliation in such consumer transaction that the supplier does not have, and which the supplier knows or should reasonably know that the

supplier does not have; . . . (b) Any representations on or within a product or its packaging or in advertising or promotional materials which would constitute a deceptive act shall be the deceptive act both of the supplier who places such a representation thereon or therein, or who authored such materials, and such suppliers who shall state orally or in writing that such representation is true if such other supplier shall know or have reason to know that such representation was false."

- 530. Ford is a "person" within the meaning of IND. CODE § 25-5-0.5-2(a)(2) and a "supplier" within the meaning of IND. CODE § 24-5-0.5-2(a)(3).
- 531. Plaintiffs' vehicle purchases are "consumer transactions" within the meaning of IND. CODE § 24-5-0.5-2(a)(3).
- 532. Pursuant to IND. CODE § 24-5-0.5-4, once the statutory notice period has expired, Plaintiffs will seek monetary relief against Ford measured as the greater of (a) actual damages in an amount to be determined at trial and (b) statutory damages in the amount of \$500 for each plaintiff, including treble damages up to \$1,000 for Ford's willfully deceptive acts.
- 533. Plaintiffs will also amend to seek punitive damages based on the outrageousness and recklessness of Ford's conduct.
- 534. On January 5, 2018, Plaintiffs sent a letter complying with IND. CODE § 24-5-0.5-5(a) to Ford.

#### VIOLATION OF THE IOWA PRIVATE RIGHT OF ACTION FOR CONSUMER FRAUDS ACT (IOWA CODE § 714H.1 *ET SEQ*.)

- 535. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 536. This claim is brought by Plaintiffs on behalf of Iowa purchasers who are members of the Class.
- 537. The Iowa Private Right of Action for Consumer Frauds Act (Iowa CFA) prohibits any "practice or act the person knows or reasonably should know is an unfair practice, deception, fraud, false pretense, or false promise, or the misrepresentation, concealment, suppression, or omission of a material fact, with the intent that others rely upon the unfair practice, deception, fraud, false pretense, false promise, misrepresentation, concealment, suppression or omission in connection with the advertisement, sale, or lease of consumer merchandise." IOWA CODE § 714H.3.
  - 538. Ford is a "person" under IOWA CODE § 714H.2(7).
- 539. Plaintiffs and Iowa Class members are "consumers" as defined by IOWA CODE § 714H.2(3) who purchased or leased one or more Polluting Vehicles.
- 540. Pursuant to IOWA CODE § 714H.5, Plaintiffs seek an order enjoining Ford's unfair and/or deceptive acts or practices, actual damages, statutory damages up to three times the amount of actual damages awarded as a result of Ford's

willful and wanton disregard for the rights of others, attorneys' fees, and other such equitable relief as the court deems necessary to protect the public from further violations of the Iowa CFA.

#### **COUNT 24**

### VIOLATION OF THE KANSAS CONSUMER PROTECTION ACT (KAN. STAT. ANN. § 50-623 ET SEQ.)

- 541. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 542. This claim is brought by Plaintiffs on behalf of Kansas purchasers who are members of the Class.
- 543. The Kansas Consumer Protection Act (Kansas CPA) states "[n]o supplier shall engage in any deceptive act or practice in connection with a consumer transaction." KAN. STAT. ANN. § 50-626(a). Deceptive acts or practices include but are not limited to "the willful use, in any oral or written representation, of exaggeration, falsehood, innuendo or ambiguity as to a material fact" and "the willful failure to state a material fact, or the willful concealment, suppression or omission of a material fact." KAN. STAT. ANN. § 50-626.
- 544. Plaintiffs and Kansas Class members are "consumers" within the meaning of KAN. STAT. ANN. § 50-624(b) who purchased or leased one or more Polluting Vehicles.

- 545. Each sale or lease of a Polluting Vehicle to Plaintiffs was a "consumer transaction" within the meaning of KAN. STAT. ANN. § 50-624(c).
- 546. Pursuant to KAN. STAT. ANN. § 50-634, Plaintiffs seek monetary relief against Ford measured as the greater of (a) actual damages in an amount to be determined at trial and (b) statutory damages in the amount of \$10,000 for each plaintiff.
- 547. Plaintiffs also seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, declaratory relief, attorneys' fees, and any other just and proper relief available under KAN. STAT. ANN. § 50-623 *et seq*.

# VIOLATIONS OF THE KENTUCKY CONSUMER PROTECTION ACT (KY. REV. STAT. § 367.110 *ET SEQ.*).

- 548. Plaintiffs incorporate by reference all paragraphs as though fully set forth herein.
  - 549. Plaintiffs bring this Count on behalf of the Kentucky Class members.
- 550. Ford, Plaintiffs, and the Kentucky Class are "persons" within the meaning of the Ky. Rev. Stat. § 367.110(1).
- 551. Ford engaged in "trade" or "commerce" within the meaning of Ky. REV. STAT. § 367.110(2).

- 552. The Kentucky Consumer Protection Act ("Kentucky CPA") makes unlawful "[u]nfair, false, misleading, or deceptive acts or practices in the conduct of any trade or commerce ...." KY. REV. STAT. § 367.170(1). In the course of Ford's business, it willfully failed to disclose and actively concealed that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that the Polluting Vehicles emitted far more pollutants than gasoline powered vehicles, that the Polluting Vehicles emit far more pollution than a reasonable consumer would expect in light of Ford's advertising campaign, and that the Polluting Vehicles emitted unlawfully high levels of pollutants, including NOx, as described above. Accordingly, Ford engaged in deceptive business practices prohibited by the Kentucky CPA.
- 553. In purchasing or leasing the Polluting Vehicles, Plaintiffs and the other Class members were deceived by Ford's failure to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that the emission controls were defective, and that the Polluting Vehicles emitted unlawfully high levels of pollutants, including NOx, as described above.
- 554. Plaintiffs and Class members reasonably relied upon Ford's false misrepresentations. They had no way of knowing that Ford's representations were false and gravely misleading. As alleged herein, Ford engaged in extremely

sophisticated methods of deception. Plaintiffs and Class members did not, and could not, unravel Ford's deception on their own.

- 555. Ford's actions as set forth above occurred in the conduct of trade or commerce.
- 556. Ford's unfair or deceptive acts or practices were likely to and did in fact deceive reasonable consumers.
- 557. Ford intentionally and knowingly misrepresented material facts regarding the Polluting Vehicles with an intent to mislead Plaintiffs and the Class.
- 558. Ford knew or should have known that its conduct violated the Kentucky CPA.
- 559. Ford owed Plaintiffs and the Class a duty to disclose the truth about its emissions systems manipulation because Ford:
  - a. Possessed exclusive knowledge that it manipulated the emissions system in the Polluting Vehicles to turn off or limit effectiveness in normal driving conditions;
  - b. Intentionally concealed the foregoing from Plaintiffs and the Class; and/or
  - c. Made incomplete representations that it manipulated the emissions system in the Polluting Vehicles to turn off or limit effectiveness in normal driving conditions, while purposefully withholding material facts from Plaintiffs and the Class that contradicted these representations.
- 560. Ford had a duty to disclose that the NOx reduction system in the Polluting Vehicles turns off or is limited during normal driving conditions, that

these Polluting Vehicles were defective, employed a "Defeat Device," and emitted pollutants at a much higher rate than gasoline powered vehicles, and that the emissions far exceeded those expected by a reasonable consumer, were non-EPA-compliant and unreliable, because Plaintiffs and the other Class members relied on Ford's material representations that the Polluting Vehicles they were purchasing were reduced emission vehicles, efficient, and free from defects.

- 561. Ford's conduct proximately caused injuries to Plaintiffs and the other Class members.
- 562. Plaintiffs and the other Class members were injured and suffered ascertainable loss, injury-in-fact, and/or actual damage as a proximate result of Ford's conduct in that Plaintiffs and the other Class members overpaid for their Polluting Vehicles and did not receive the benefit of their bargain, and their Polluting Vehicles have suffered a diminution in value. These injuries are the direct and natural consequence of Ford's misrepresentations and omissions.
- 563. Ford's violations present a continuing risk to Plaintiffs as well as to the general public. Ford's unlawful acts and practices complained of herein affect the public interest.
- 564. Pursuant to Ky. REV. STAT. ANN. § 367.220, Plaintiffs and the Class seek to recover actual damages in an amount to be determined at trial; declaratory

relief; attorneys' fees; and any other just and proper relief available under Ky. REV. STAT. ANN. § 367.220.

#### **COUNT 26**

#### VIOLATION OF THE LOUISIANA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION LAW (LA. REV. STAT. § 51:1401 ET SEQ.)

- 565. Plaintiffs reallege and incorporate by reference all paragraphs as though fully set forth herein.
- 566. This claim is brought by Plaintiffs on behalf of Louisiana purchasers who are members of the Class
- 567. Ford, Plaintiffs, and the Louisiana Class members are "persons" within the meaning of LA. REV. STAT. § 51:1402(8).
- 568. Plaintiffs and Louisiana Class members are "consumers" within the meaning of La. Rev. Stat. § 51:1402(1).
- 569. Ford engaged in "trade" or "commerce" within the meaning of LA. REV. STAT. § 51:1402(9).
- 570. The Louisiana Unfair Trade Practices and Consumer Protection Law ("Louisiana CPL") makes unlawful "deceptive acts or practices in the conduct of any trade or commerce." LA. REV. STAT. § 51:1405(A). Ford participated in misleading, false, or deceptive acts that violated the Louisiana CPL.
- 571. Ford also engaged in unlawful trade practices by employing deception, deceptive acts or practices, fraud, misrepresentations, or concealment,

suppression or omission of any material fact with intent that others rely upon such concealment, suppression or omission, in connection with the sale of Polluting Vehicles.

- 572. Ford's unfair or deceptive acts or practices were likely to and did in fact deceive reasonable consumers.
- 573. Ford intentionally and knowingly misrepresented material facts regarding the Polluting Vehicles with intent to mislead Plaintiffs and the Louisiana Class.
- 574. Ford knew or should have known that its conduct violated the Louisiana CPL.
- 575. Ford owed Plaintiffs a duty to disclose the emissions in the Polluting Vehicles, because Ford:
  - a. Possessed exclusive knowledge;
  - b. Intentionally concealed the foregoing from Plaintiffs; and/or
  - c. Made incomplete representations about the emissions and performance of the Polluting Vehicles, while purposefully withholding material facts from Plaintiffs that contradicted these representations.
- 576. Plaintiffs and the Louisiana Class suffered ascertainable loss caused by Ford's misrepresentations and its concealment of and failure to disclose material information.

- 577. As a direct and proximate result of Ford's violations of the Louisiana CPL, Plaintiffs and the Louisiana Class have suffered injury-in-fact and/or actual damage.
- 578. Pursuant to La. Rev. Stat. § 51:1409, Plaintiffs and the Louisiana Class seek to recover actual damages in an amount to be determined at trial; treble damages for Ford's knowing violations of the Louisiana CPL; an order enjoining Ford's unfair, unlawful, and/or deceptive practices; declaratory relief; attorneys' fees; and any other just and proper relief available under La. Rev. Stat. § 51:1409.

### FRAUDULENT CONCEALMENT (BASED ON LOUISIANA LAW)

- 579. Plaintiffs reallege and incorporate by reference all paragraphs as though fully set forth herein.
- 580. This claim is brought by Plaintiffs on behalf of Louisiana purchasers who are members of the Class.
- 581. Ford concealed and suppressed material facts concerning the quality of its vehicles and the emissions system in the Polluting Vehicles.
- 582. Because of the concealment and/or suppression of the facts, Plaintiffs and the Louisiana Class sustained damage because they overpaid for their vehicles and own vehicles that diminished in value as a result of Ford's concealment. Had

they been aware of the true facts, Plaintiffs and Class members would not have purchase or leased their Polluting Vehicles or would have paid less.

#### **COUNT 28**

## VIOLATION OF THE MAINE UNFAIR TRADE PRACTICES ACT (ME. REV. STAT. ANN. TIT. 5, § 205-A ET SEQ.)

- 583. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 584. This claim is brought by Plaintiffs on behalf of Maine purchasers who are members of the Class.
- 585. The Maine Unfair Trade Practices Act (Maine UTPA) makes unlawful "[u]nfair methods of competition and unfair or deceptive acts or practices in the conduct of any trade or commerce." ME. REV. STAT. ANN. TIT. 5, § 207.
- 586. Ford, Plaintiffs, and Maine Class members are "persons" within the meaning of ME. REV. STAT. ANN. TIT. § 5, 206(2).
- 587. Ford is engaged in "trade" or "commerce" within the meaning of ME. REV. STAT. ANN. TIT. § 5, 206(3).
- 588. Pursuant to ME. REV. STAT. ANN. TIT. 5, § 213, Plaintiffs seek an order enjoining Ford's unfair and/or deceptive acts or practices.
- 589. On January 5, 2018, Plaintiffs sent a letter complying with ME. REV. STAT. ANN. TIT. 5, § 213(1-A) to Ford. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend

their complaint to bring this claim on behalf of Maine purchasers who are members of the Class.

#### **COUNT 29**

#### VIOLATION OF THE MARYLAND CONSUMER PROTECTION ACT (MD. CODE ANN., COM. LAW § 13-101 ET SEQ.)

- 590. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 591. This claim is brought by Plaintiffs on behalf of Maryland purchasers who are members of the Class.
- that a person may not engage in any unfair or deceptive trade practice in the sale or lease of any consumer good, including "failure to state a material fact if the failure deceives or tends to deceive" and "[d]eception, fraud, false pretense, false premise, misrepresentation, or knowing concealment, suppression, or omission of any material fact with the intent that a consumer rely on the same," MD. CODE ANN., COM. LAW § 13-301, regardless of whether the consumer is actually deceived or damaged, MD. CODE ANN., COM. LAW § 13-302.
- 593. Ford, Plaintiffs, and Maryland Class members are "persons" within the meaning of MD. CODE ANN., COM. LAW § 13-101(h).

594. Pursuant to MD. CODE ANN., COM. LAW § 13-408, Plaintiffs seek actual damages, attorneys' fees, and any other just and proper relief available under the Maryland CPA.

#### **COUNT 30**

#### VIOLATION OF THE MASSACHUSETTS GENERAL LAW CHAPTER 93(A) (MASS. GEN. LAWS CH. 93A, § 1 *ET SEQ*.)

- 595. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 596. On January 5, 2018, Plaintiffs sent a letter complying with MASS. GEN. LAWS CH. 93A, § 9(3) to Ford.

#### COUNT 31

#### VIOLATION OF THE MICHIGAN CONSUMER PROTECTION ACT (MICH. COMP. LAWS § 445.903 *ET SEQ.*)

- 597. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 598. This claim is brought by Plaintiffs on behalf of Michigan purchasers who are members of the Class.
- 599. The Michigan Consumer Protection Act (Michigan CPA) prohibits "[u]nfair, unconscionable, or deceptive methods, acts, or practices in the conduct of trade or commerce," including "[f]ailing to reveal a material fact, the omission of which tends to mislead or deceive the consumer, and which fact could not reasonably be known by the consumer"; "[m]aking a representation of fact or

statement of fact material to the transaction such that a person reasonably believes the represented or suggested state of affairs to be other than it actually is"; or "[f]ailing to reveal facts that are material to the transaction in light of representations of fact made in a positive manner." MICH. COMP. LAWS § 445.903(1). Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.

- 600. Plaintiffs and Michigan Class members are "person[s]" within the meaning of the MICH. COMP. LAWS § 445.902(1)(d).
- 601. Ford is a "person" engaged in "trade or commerce" within the meaning of the MICH. COMP. LAWS § 445.902(1)(d) and (g).
- 602. Plaintiffs seek injunctive relief to enjoin Ford from continuing their unfair and deceptive acts; monetary relief against Ford measured as the greater of (a) actual damages in an amount to be determined at trial and (b) statutory damages

in the amount of \$250 for each plaintiff; reasonable attorneys' fees; and any other just and proper relief available under MICH. COMP. LAWS § 445.911.

603. Plaintiffs also seek punitive damages because Ford carried out despicable conduct with willful and conscious disregard of the rights of others. Ford's conduct constitutes malice, oppression, and fraud warranting punitive damages.

#### COUNT 32

#### VIOLATION OF THE MINNESOTA PREVENTION OF CONSUMER FRAUD ACT (MINN. STAT. § 325F.68 ET SEQ.)

- 604. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 605. This claim is brought by Plaintiffs on behalf of Minnesota purchasers who are members of the Class.
- 606. The Minnesota Prevention of Consumer Fraud Act (Minnesota CFA) prohibits "[t]he act, use, or employment by any person of any fraud, false pretense, false promise, misrepresentation, misleading statement or deceptive practice, with the intent that others rely thereon in connection with the sale of any merchandise, whether or not any person has in fact been misled, deceived, or damaged thereby." MINN. STAT. § 325F.69(1).
- 607. Each purchase or lease of a Polluting Vehicle constitutes "merchandise" within the meaning of MINN. STAT. § 325F.68(2).

- 608. Pursuant to MINN. STAT. § 8.31(3a), Plaintiffs seek actual damages, attorneys' fees, and any other just and proper relief available under the Minnesota CFA.
- 609. Plaintiffs also seek punitive damages under MINN. STAT. § 549.20(1)(a) given the clear and convincing evidence that Ford's acts show deliberate disregard for the rights of others.

# VIOLATION OF THE MINNESOTA DECEPTIVE TRADE PRACTICES ACT (MINN. STAT. § 325D.43-48 ET SEQ.)

- 610. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 611. This claim is brought by Plaintiffs on behalf of Minnesota purchasers who are members of the Class.
- 612. The Minnesota Deceptive Trade Practices Act (Minnesota DTPA) prohibits deceptive trade practices, which include "[t]he act, use, or employment by any person of any fraud, false pretense, false promise, misrepresentation, misleading statement or deceptive practice, with the intent that others rely thereon in connection with the sale of any merchandise, whether or not any person has in fact been misled, deceived, or damaged thereby." MINN. STAT. § 325F.69(1).

- 613. Pursuant to MINN. STAT. § 8.31(3a), Plaintiffs seek actual damages, attorneys' fees, and any other just and proper relief available under the Minnesota CFA.
- 614. Plaintiffs also seek punitive damages under MINN. STAT. § 549.20(1)(a) given the clear and convincing evidence that Ford's acts show deliberate disregard for the rights of others.

#### VIOLATION OF THE MISSISSIPPI CONSUMER PROTECTION ACT (MISS. CODE. ANN. § 75-24-1 *ET SEQ.*)

- 615. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 616. This claim is brought by Plaintiffs on behalf of Mississippi purchasers who are members of the Class.
- 617. The Mississippi Consumer Protection Act (Mississippi CPA) prohibits "unfair or deceptive trade practices in or affecting commerce." MISS. CODE ANN. § 75-24-5(1). Unfair or deceptive practices include but are not limited to "(e) Representing that goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, or quantities that they do not have or that a person has a sponsorship, approval, status, affiliation, or connection that he does not have"; "(g) Representing that goods or services are of a particular standard, quality, or grade, or that goods are of a particular style or model, if they

are of another"; and "(i) Advertising goods or services with intent not to sell them as advertised." MISS. CODE ANN. § 75-24-5(2).

618. Plaintiffs seek actual damages in an amount to be determined at trial and any other just and proper relief available under the Mississippi CPA.

#### **COUNT 35**

#### VIOLATION OF THE MONTANA UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION ACT OF 1973 (MONT. CODE ANN. § 30-14-101 ET SEQ.)

- 619. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 620. This claim is brought by Plaintiffs on behalf of Montana purchasers who are members of the Class.
- 621. The Montana Unfair Trade Practices and Consumer Protection Act (Montana CPA) makes unlawful any "unfair methods of competition and unfair or deceptive acts or practices in the conduct of any trade or commerce." MONT. CODE ANN. § 30-14-103.
- 622. Ford, Plaintiffs, and Montana Class members are "persons" within the meaning of Mont. Code Ann. § 30-14-102(6).
- 623. Plaintiffs and Montana Class members are "consumer[s]" under MONT. CODE ANN. § 30-14-102(1).
- 624. The sale or lease of each Polluting Vehicle at issue occurred within "trade and commerce" within the meaning of MONT. CODE ANN. § 30-14-102(8),

and Ford committed deceptive and unfair acts in the conduct of "trade and commerce" as defined in that statutory section.

- 625. Because Ford's unlawful methods, acts, and practices have caused Plaintiffs to suffer an ascertainable loss of money and property, Plaintiffs seek from Ford: the greater of actual damages or \$500; discretionary treble damages; and reasonable attorneys' fees.
- 626. Plaintiffs additionally seek an order enjoining Ford's unfair, unlawful, and/or deceptive practices, and any other relief the Court considers necessary or proper, under Mont. Code Ann. § 30-14-133.

#### **COUNT 36**

#### VIOLATION OF THE NEBRASKA CONSUMER PROTECTION ACT (NEB. REV. STAT. § 59-1601 *ET SEQ.*)

- 627. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 628. This claim is brought by Plaintiffs on behalf of Nebraska purchasers who are members of the Class.
- 629. The Nebraska Consumer Protection Act (Nebraska CPA) prohibits "unfair or deceptive acts or practices in the conduct of any trade or commerce." Neb. Rev. Stat. § 59-1602.
- 630. Ford, Plaintiffs, and Nebraska Class members are "person[s]" under Neb. Rev. Stat. § 59-1601(1).

- 631. Ford's actions as set forth herein occurred in the conduct of trade or commerce as defined under NEB. REV. STAT. § 59-1601(2).
- 632. Because Ford's conduct caused injury to Plaintiffs' property through violations of the Nebraska CPA, Plaintiffs seek recovery of actual damages as well as enhanced damages up to \$1,000, an order enjoining Ford's unfair or deceptive acts and practices, costs of Court, reasonable attorneys' fees, and any other just and proper relief available under NEB. REV. STAT. § 59-1609.

## VIOLATION OF THE NEVADA DECEPTIVE TRADE PRACTICES ACT (NEV. REV. STAT. § 598.0903 ET SEQ.)

- 633. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 634. This claim is brought by Plaintiffs on behalf of Nevada purchasers who are members of the Class.
- 635. The Nevada Deceptive Trade Practices Act (Nevada DTPA) prohibits deceptive trade practices. Nev. Rev. Stat. § 598.0915 provides that a person engages in a "deceptive trade practice" if, in the course of business or occupation, the person "[k]nowingly makes a false representation as to the characteristics, ingredients, uses, benefits, alterations or quantities of goods or services for sale or lease or a false representation as to the sponsorship, approval, status, affiliation or connection of a person therewith"; "[r]epresents that goods or services for sale or

lease are of a particular standard, quality or grade, or that such goods are of a particular style or model, if he or she knows or should know that they are of another standard, quality, grade, style or model"; "[a]dvertises goods or services with intent not to sell or lease them as advertised"; or "[k]nowingly makes any other false representation in a transaction." NEV. REV. STAT. §§ 598.0915-598.0925. Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.

636. Accordingly, Plaintiffs seek their actual damages, punitive damages, an order enjoining Ford's deceptive acts or practices, costs of Court, attorney's fees, and all other appropriate and available remedies under the Nevada DTPA.

NEV. REV. STAT. § 41.600.

#### VIOLATION OF THE NEW HAMPSHIRE CONSUMER PROTECTION ACT (N.H. REV. STAT. ANN. § 358-A:1 *ET SEQ.*)

- 637. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 638. This claim is brought by Plaintiffs on behalf of New Hampshire purchasers who are members of the Class.
- 639. The New Hampshire Consumer Protection Act (New Hampshire CPA) prohibits a person, in the conduct of any trade or commerce, from "using any unfair or deceptive act or practice," including "but . . . not limited to, the following: . . . [r]epresenting that goods or services have . . . characteristics, . . . uses, benefits, or quantities that they do not have"; "[r]epresenting that goods or services are of a particular standard, quality, or grade, . . . if they are of another"; and "[a]dvertising goods or services with intent not to sell them as advertised." N.H. REV. STAT. § 358-A:2.
- 640. Ford, Plaintiffs, and New Hampshire Class members are "persons" under N.H. REV. STAT. ANN. § 358-A:1.
- 641. Ford's actions as set forth herein occurred in the conduct of trade or commerce as defined under N.H. REV. STAT. ANN. § 358-A:1.
- 642. Because Ford's willful conduct caused injury to Plaintiffs' property through violations of the New Hampshire CPA, Plaintiffs seek recovery of actual

damages or \$1,000, whichever is greater; treble damages; costs and reasonable attorneys' fees; an order enjoining Ford's unfair and/or deceptive acts and practices; and any other just and proper relief under N.H. REV. STAT. ANN. § 358-A:10.

#### **COUNT 39**

## VIOLATION OF THE NEW JERSEY CONSUMER FRAUD ACT (N.J. STAT. ANN. § 56:8-1 ET SEQ.)

- 643. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 644. This claim is brought by Plaintiffs on behalf of New Jersey purchasers who are members of the Class.
- ommercial practice, deception, fraud, false pretense, false promise, misrepresentation, or the knowing concealment, suppression or omission of any material fact with the intent that others rely upon such concealment, suppression or omission, in connection with the sale or advertisement of any merchandise or real estate, or with the subsequent performance of such person as aforesaid, whether or not any person has in fact been misled, deceived or damaged thereby." N.J. STAT.

  Ann. § 56:8-2. Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive

amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.

- 646. Ford, Plaintiffs, and New Jersey Class members are "persons" within the meaning of N.J. STAT. ANN. § 56:8-1(d).
- 647. Ford engaged in "sales" of "merchandise" within the meaning of N.J. STAT. ANN. § 56:8-1(c), (d).
- 648. Plaintiffs are entitled to recover legal and/or equitable relief, including an order enjoining Ford's unlawful conduct, treble damages, costs, and reasonable attorneys' fees pursuant to N.J. STAT. ANN. § 56:8-19, and any other just and appropriate relief.

#### **COUNT 40**

### FRAUD BY CONCEALMENT (BASED ON NEW JERSEY LAW)

- 649. Plaintiffs incorporate by reference all preceding allegations as though fully set forth herein.
- 650. Plaintiffs bring this claim on behalf of the New Jersey purchasers who are members of the Class.

- 651. Ford intentionally concealed the true amount and characteristics of the emissions in the Polluting Vehicles.
- 652. Ford further affirmatively misrepresented to Plaintiffs in advertising and other forms of communication, including standard and uniform material provided with each car and on its website, the true performance and emissions in the Polluting Vehicles.
  - 653. Ford knew the truth when these representations were made.
- 654. Ford had a duty to disclose the truth. Plaintiffs and the other Class members relied on Ford's material representations.
- 655. The truth about the emissions system was known only to Ford; Plaintiffs and the other Class members did not know of these facts and Ford actively concealed these facts from Plaintiffs and the other Class members.
- 656. Plaintiffs and the other Class members reasonably relied upon Ford's deception. They had no way of knowing that Ford's representations were false, misleading, or incomplete. As consumers, Plaintiffs and the other Class members did not, and could not, unravel Ford's deception on their own. Rather, Ford intended to deceive Plaintiffs and the other Class members by concealing the true facts about the Polluting Vehicles.

- 657. Ford's false representations and omissions and/or misrepresentations were material to consumers because they concerned qualities of the Polluting Vehicles that played a significant role in the value of the vehicles.
- 658. Plaintiffs and the other Class members were unaware of the omitted material facts referenced herein and they would not have acted as they did if they had known of the concealed and/or suppressed facts, in that they would not have purchased or paid as much for these vehicles. Plaintiffs' and the other Class members' actions were justified. Ford was in exclusive and/or superior control of the material facts, and such facts were not generally known to the public, Plaintiffs, or other Class members.
- 659. Because of the concealment and/or suppression of facts, Plaintiffs and the other Class members sustained damage because they overpaid at the time of purchase.
- 660. The value of Plaintiffs' and the other Class members' vehicles has diminished as a result of Ford's fraudulent concealment.
- 661. Accordingly, Ford is liable to Plaintiffs and the other Class members for damages in an amount to be proven at trial.
- 662. Ford's acts were done wantonly, maliciously, oppressively, deliberately, with intent to defraud, and in reckless disregard of Plaintiffs' and other Class members' rights and the representations that Ford made to them, in

order to enrich Ford. Ford's conduct warrants an assessment of punitive damages in an amount sufficient to deter such conduct in the future, which amount is to be determined according to proof.

#### COUNT 41

# VIOLATION OF THE NEW MEXICO UNFAIR TRADE PRACTICES ACT (N.M. STAT. ANN. § 57-12-1 ET SEQ.)

- 663. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 664. This claim is brought by Plaintiffs on behalf of New Mexico purchasers who are members of the Class.
- makes unlawful "a false or misleading oral or written statement, visual description or other representation of any kind knowingly made in connection with the sale, lease, rental or loan of goods or services . . . by a person in the regular course of the person's trade or commerce, that may, tends to or does deceive or mislead any person," including but not limited to "failing to state a material fact if doing so deceives or tends to deceive." N.M. STAT. ANN. § 57-12-2(D). Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and

towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.

- 666. Ford, Plaintiffs, and New Mexico Class members are "person[s]" under N.M. STAT. ANN. § 57-12-2.
- 667. Ford's actions as set forth herein occurred in the conduct of trade or commerce as defined under N.M. STAT. ANN. § 57-12-2.
- 668. Because Ford's unconscionable, willful conduct caused actual harm to Plaintiffs, Plaintiffs seek recovery of actual damages or \$100, whichever is greater; discretionary treble damages; punitive damages; and reasonable attorneys' fees and costs, as well as all other proper and just relief available under N.M. STAT. ANN. \$ 57-12-10.

#### **COUNT 42**

## VIOLATION OF THE NEW YORK GENERAL BUSINESS LAW (N.Y. GEN. BUS. LAW §§ 349–350)

- 669. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 670. This claim is brought by Plaintiffs on behalf of New York purchasers who are members of the Class.

- 671. The New York General Business Law (New York GBL) makes unlawful "[d]eceptive acts or practices in the conduct of any business, trade or commerce." N.Y. GEN. BUS. LAW § 349.
- 672. Plaintiffs and New York Class members are "persons" within the meaning of N.Y. GEN. BUS. LAW § 349(h).
- 673. Ford is a "person," "firm," "corporation," or "association" within the meaning of N.Y. GEN. BUS. LAW § 349.
- 674. Ford's deceptive acts and practices, which were intended to mislead consumers who purchased or leased a Polluting Vehicle, was conduct directed at consumers.
- 675. Because Ford's willful and knowing conduct caused injury to Plaintiffs, Plaintiffs seek recovery of actual damages or \$50, whichever is greater; discretionary treble damages up to \$1,000; punitive damages; reasonable attorneys' fees and costs; an order enjoining Ford's deceptive conduct; and any other just and proper relief available under N.Y. GEN. BUS. LAW § 349.

# VIOLATION OF THE NORTH CAROLINA UNFAIR AND DECEPTIVE ACTS AND PRACTICES ACT (N.C. GEN. STAT. § 75-1.1 ET SEQ.)

676. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.

- 677. This claim is brought by Plaintiffs on behalf of North Carolina purchasers who are members of the Class.
- 678. North Carolina's Unfair and Deceptive Acts and Practices Act (the North Carolina Act) broadly prohibits "unfair or deceptive acts or practices in or affecting commerce." N.C. GEN. STAT. § 75-1.1(a).
- 679. Ford engaged in "commerce" within the meaning of N.C. GEN. STAT. § 75-1.1(b).
- 680. Plaintiffs seek an order for treble their actual damages, an order enjoining Ford's unlawful acts, costs of Court, attorney's fees, and any other just and proper relief available under the North Carolina Act, N.C. GEN. STAT. § 75-16.

# VIOLATION OF THE NORTH DAKOTA CONSUMER FRAUD ACT (N.D. CENT. CODE § 51-15-02)

- 681. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 682. This claim is brought by Plaintiffs on behalf of North Dakota purchasers who are members of the Class.
- 683. The North Dakota Consumer Fraud Act (North Dakota CFA) makes unlawful "[t]he act, use, or employment by any person of any deceptive act or practice, fraud, false pretense, false promise, or misrepresentation, with the intent

that others rely thereon in connection with the sale or advertisement of any merchandise." N.D. CENT. CODE § 51-15-02.

- 684. Ford, Plaintiffs, and North Dakota Class members are "persons" within the meaning of N.D. CENT. CODE § 51-15-02(4).
- 685. Ford engaged in the "sale" of "merchandise" within the meaning of N.D. CENT. CODE § 51-15-02(3), (5).
- 686. Ford knowingly committed the conduct described above and therefore, under N.D. CENT. CODE § 51-15-09, Ford is liable to Plaintiffs for treble damages in amounts to be proven at trial, as well as attorneys' fees, costs, and disbursements. Plaintiffs further seek an order enjoining Ford's unfair and/or deceptive acts or practices, and other just and proper available relief under the North Dakota CFA.

### COUNT 45

# VIOLATION OF THE OHIO CONSUMER SALES PRACTICES ACT (OHIO REV. CODE ANN. § 1345.01 ET SEQ.)

- 687. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 688. This claim is brought by Plaintiffs on behalf of Ohio purchasers who are members of the Class.
- 689. Ohio Consumer Sales Practices Act (Ohio CSPA), OHIO REV. CODE ANN. § 1345.02, broadly prohibits unfair or deceptive acts or practices in

connection with a consumer transaction. Specifically, and without limitation of the broad prohibition, the Act prohibits (1) representing that Polluting Vehicles have characteristics, uses, benefits, and qualities which they do not have, (2) representing that Polluting Vehicles are of a particular standard, quality, and grade when they are not, (3) advertising Polluting Vehicles with the intent not to sell them as advertised, and (4) engaging in acts or practices which are otherwise unfair, misleading, false, or deceptive to the consumer. Ohio Rev. Code Ann. § 1345.02.

- 690. The Ohio Attorney General has made available for public inspection prior state court decisions which have held that the acts and omissions of Ford in this Complaint, including but not limited to the failure to honor both implied warranties and express warranties, the making and distribution of false, deceptive, and/or misleading representations, and the concealment and/or non-disclosure of a dangerous defect, constitute deceptive sales practices in violation of the OCSPA. These cases include, but are not limited to, the following:
  - a. Mason v. Mercedes Benz USA, LLC (OPIF #10002382);
  - b. State ex rel. Betty D. Montgomery v. Volkswagen Motor Co. (OPIF #10002123);
  - c. State ex rel. Betty D. Montgomery v. Bridgestone/Firestone, Inc. (OPIF #10002025);
  - d. *Bellinger v. Hewlett-Packard Co.*, No. 20744, 2002 Ohio App. LEXIS 1573 (Ohio Ct. App. Apr. 10, 2002) (OPIF #10002077);

- e. *Borror v. MarineMax of Ohio*, No. OT-06-010, 2007 Ohio App. LEXIS 525 (Ohio Ct. App. Feb. 9, 2007) (OPIF #10002388);
- f. State ex rel. Jim Petro v. Craftmatic Organization, Inc. (OPIF #10002347);
- g. *Mark J. Craw Volkswagen, et al. v. Joseph Airport Toyota, Inc.* (OPIF #10001586);
- h. State ex rel. William J. Brown v. Harold Lyons, et al. (OPIF #10000304);
- i. Brinkman v. Mazda Motor of America, Inc. (OPIF #10001427);
- j. *Khouri v. Don Lewis* (OPIF #100001995);
- k. *Mosley v. Performance Mitsubishi aka Automanage* (OPIF #10001326);
- 1. Walls v. Harry Williams dba Butch's Auto Sales (OPIF #10001524); and
- m. *Brown v. Spears* (OPIF #10000403).
- 691. Ford is a "supplier" as that term is defined in OHIO REV. CODE ANN. § 1345.01(C).
- 692. Plaintiffs and Ohio Class members are "consumers" as that term is defined in Ohio Rev. Code Ann. § 1345.01(D), and their purchase or lease of one or more Polluting Vehicles is a "consumer transaction" within the meaning of Ohio Rev. Code Ann. § 1345.01(A).
- 693. As a result of the foregoing wrongful conduct, Plaintiffs have been damaged in an amount to be proven at trial and seek all just and proper remedies, including but not limited to actual and statutory damages, an order enjoining

Ford's deceptive and unfair conduct, treble damages, court costs, and reasonable attorneys' fees, pursuant to OHIO REV. CODE ANN. § 1345.09 *et seq*.

### COUNT 46

# VIOLATION OF THE OKLAHOMA CONSUMER PROTECTION ACT (OKLA. STAT. TIT. 15, § 751 ET SEQ.)

- 694. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 695. This claim is brought by Plaintiffs on behalf of Oklahoma purchasers who are members of the Class.
- 696. The Oklahoma Consumer Protection Act (Oklahoma CPA) declares unlawful, *inter alia*, the following acts or practices when committed in the course of business: making a "misrepresentation, omission or other practice that has deceived or could reasonably be expected to deceive or mislead a person to the detriment of that person" and "any practice which offends established public policy or if the practice is immoral, unethical, oppressive, unscrupulous or substantially injurious to consumers." OKLA. STAT. TIT. 15, §§ 752–753.
- 697. Plaintiffs and Oklahoma Class members are "persons" under OKLA. STAT. TIT. 15, § 752.
- 698. Ford is a "person," "corporation," or "association" within the meaning of OKLA. STAT. TIT. 15, § 15-751(1).

- 699. The sale or lease of a Polluting Vehicle to Plaintiffs was a "consumer transaction" within the meaning of OKLA. STAT. TIT. 15, § 752 and Ford's actions as set forth herein occurred in the conduct of trade or commerce.
- 700. Ford's acts were made knowingly, intentionally, and with malice. Ford demonstrated a complete lack of care and were in reckless disregard for the rights of Plaintiffs and the other Class members. Plaintiffs and the other Class members are therefore entitled to an award of punitive damages to the extent permitted under applicable law.
- 701. Ford's conduct as alleged herein was unconscionable because (1) Ford, knowingly or had reason to know, took advantage of consumers reasonably unable to protect their interests because of their ignorance of Ford's fraudulent omissions and representations; (2) at the time the consumer transaction was entered into, Ford knew or had reason to know that price the consumers were charged grossly exceeded the price at which they would have paid if they had known of the Ford's scheme, and (3) Ford knew or had reason to know that the transaction it induced the consumers to enter into was excessively one-sided in favor of Ford.
- 702. Because Ford's unconscionable conduct caused injury to Plaintiffs, Plaintiffs seek recovery of actual damages, discretionary penalties up to \$2,000 per violation, and reasonable attorneys' fees, under OKLA. STAT. TIT. 15, § 761.1.

Plaintiffs further seek an order enjoining Ford's unfair and/or deceptive acts or practices, and any other just and proper relief available under the Oklahoma CPA.

### **COUNT 47**

## VIOLATION OF THE OREGON UNLAWFUL TRADE PRACTICES ACT (OR. REV. STAT. § 646.605 ET SEQ.)

- 703. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 704. This claim is brought by Plaintiffs on behalf of Oregon purchasers who are members of the Class.
- 705. The Oregon Unfair Trade Practices Act (Oregon UTPA) prohibits a person from, in the course of the person's business, doing any of the following: representing that goods have characteristics uses, benefits, or qualities that they do not have; representing that goods are of a particular standard or quality if they are of another; advertising goods or services with intent not to provide them as advertised; and engaging in any other unfair or deceptive conduct in trade or commerce. OR. REV. STAT. § 646.608(1). Ford failed to disclose that the Super Duty vehicles (1) turn off or down emissions systems during common driving conditions resulting in massive amounts of NOx as compared to federal and state standards, (2) that absent the emissions manipulation these vehicles would not have passed emissions tests, (3) that fuel economy and towing capacity was achieved by turning down or off emissions systems; and (4) that emissions and fuel

economy were far worse than a reasonable consumer would expect given the premium paid for these vehicles over a comparable gas powered vehicle.

- 706. Ford is a person within the meaning of OR. REV. STAT. § 646.605(4).
- 707. Each Polluting Vehicle is a "good" obtained primarily for personal family or household purposes within the meaning of OR. REV. STAT. § 646.605(6).
- 708. Plaintiffs are entitled to recover the greater of actual damages or \$200 pursuant to OR. REV. STAT. § 646.638(1). Plaintiffs are also entitled to punitive damages because Ford engaged in conduct amounting to a particularly aggravated, deliberate disregard of the rights of others.

### COUNT 48

## VIOLATION OF THE RHODE ISLAND UNFAIR TRADE PRACTICES AND CONSUMER PROTECTION ACT (R.I. GEN. LAWS § 6-13.1 ET SEQ.)

- 709. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 710. This claim is brought by Plaintiffs on behalf of Rhode Island purchasers who are members of the Class.
- 711. Rhode Island's Unfair Trade Practices and Consumer Protection Act (Rhode Island CPA) prohibits "unfair or deceptive acts or practices in the conduct of any trade or commerce," including "[e]ngaging in any act or practice that is unfair or deceptive to the consumer" and "[u]sing any other methods, acts or

practices which mislead or deceive members of the public in a material respect."

R.I. GEN. LAWS § 6-13.1-1(6).

- 712. Ford, Plaintiffs, and Rhode Island Class members are "persons" within the meaning of R.I. GEN. LAWS § 6-13.1-1(3).
- 713. Ford was engaged in "trade" and "commerce" within the meaning of R.I. GEN. LAWS § 6-13.1-1(5).
- 714. Plaintiffs purchased or leased Polluting Vehicles primarily for personal, family, or household purposes within the meaning of R.I. GEN. LAWS § 6-13.1-5.2(a).
- 715. Plaintiffs are entitled to recover the greater of actual damages or \$200 pursuant to R.I. GEN. LAWS § 6-13.1-5.2(a). Plaintiffs also seek punitive damages at the discretion of the Court.

### **COUNT 49**

# VIOLATION OF THE SOUTH CAROLINA UNFAIR TRADE PRACTICES ACT (S.C. CODE ANN. § 39-5-10 ET SEQ.)

- 716. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 717. This claim is brought by Plaintiffs on behalf of South Carolina purchasers who are members of the Class.

- 718. The South Carolina Unfair Trade Practices Act (South Carolina UTPA) prohibits "unfair or deceptive acts or practices in the conduct of any trade or commerce." S.C. CODE ANN. § 39-5-20(a).
  - 719. Ford is a "person" under S.C. CODE ANN. § 39-5-10.
- 720. Pursuant to S.C. CODE ANN. § 39-5-140(a), Plaintiffs seek monetary relief to recover their economic losses. Because Ford's actions were willful and knowing, Plaintiffs' damages should be trebled.
- 721. Plaintiffs further allege that Ford's malicious and deliberate conduct warrants an assessment of punitive damages because it carried out despicable conduct with willful and conscious disregard of the rights of others. Ford's unlawful conduct constitutes malice, oppression, and fraud warranting punitive damages.
- 722. Plaintiffs further seek an order enjoining each Ford's unfair or deceptive acts or practices.

### VIOLATION OF THE SOUTH DAKOTA DECEPTIVE TRADE PRACTICES AND CONSUMER PROTECTION LAW (S.D. CODIFIED LAWS § 37-24-6)

- 723. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 724. This claim is brought by Plaintiffs on behalf of South Dakota purchasers who are members of the Class.

- 725. The South Dakota Deceptive Trade Practices and Consumer Protection Law (South Dakota CPL) prohibits deceptive acts or practices, which include "[k]nowingly act[ing], us[ing], or employ[ing] any deceptive act or practice, fraud, false pretense, false promises, or misrepresentation or to conceal, suppress, or omit any material fact in connection with the sale or advertisement of any merchandise, regardless of whether any person has in fact been misled, deceived, or damaged thereby." S.D. Codified Laws §§ 37-24-6(1), 37-24-31.
- 726. Under S.D. CODIFIED LAWS § 37-24-31, Plaintiffs are entitled to a recovery of their actual damages suffered as a result of Ford's acts and practices.

# VIOLATION OF THE UTAH CONSUMER SALE PRACTICES ACT (UTAH CODE ANN. § 13-11-1 ET SEQ.)

- 727. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 728. This claim is brought by Plaintiffs on behalf of Utah purchasers who are members of the Class.
- 729. The Utah Consumer Sales Practices Act (Utah CSPA) makes unlawful any "deceptive act or practice by a supplier in connection with a consumer transaction," including but not limited to indicating that the subject of a consumer transaction has sponsorship, approval, performance characteristics, accessories, uses, or benefits, if it has not; indicating that the subject of a consumer transaction

is of a particular standard, quality, grade, style, or model, if it is not; and "indicat[ing] that a specific price advantage exists, if it does not." UTAH CODE ANN. § 13-11-4.

- 730. Ford knew, or had reason to know, that consumers would rely on their failure to disclose the defects in its emissions system. Ford therefore engaged in an unconscionable act within the meaning of UTAH CODE ANN. § 13-11-5.
- 731. Pursuant to UTAH CODE ANN. § 13-11-4, Plaintiffs seek monetary relief measured as the greater of (a) actual damages in an amount to be determined at trial and (b) statutory damages in the amount of \$2,000 for each Plaintiff; reasonable attorneys' fees; and any other just and proper relief available under the Utah CSPA.

#### COUNT 52

# VIOLATION OF THE VERMONT CONSUMER FRAUD ACT (VT. STAT. ANN. TIT. 9, § 2451 ET SEQ.)

- 732. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 733. This claim is brought by Plaintiffs on behalf of Vermont purchasers who are members of the Class.
- 734. The Vermont Consumer Fraud Act (Vermont CFA) makes unlawful "[u]nfair methods of competition in commerce, and unfair or deceptive acts or practices in commerce." VT. STAT. ANN. TIT. 9, § 2453(a).

- 735. Ford was a seller within the meaning of VT. STAT. ANN. TIT. 9, § 2451(a)(c).
- 736. Plaintiffs are entitled to recover "appropriate equitable relief" and "the amount of [their] damages, or the consideration or the value of the consideration given by [them], reasonable attorney's fees, and exemplary damages not exceeding three times the value of the consideration given by [them]," pursuant to VT. STAT. ANN. TIT. 9, § 2461(b).

# VIOLATION OF THE VIRGINIA CONSUMER PROTECTION ACT (VA. CODE ANN. § 59.1-196 ET SEQ.)

- 737. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 738. This claim is brought by Plaintiffs on behalf of Virginia purchasers who are members of the Class.
- 739. The Virginia Consumer Protection Act (Virginia CPA) lists prohibited "practices," which include "[u]sing any other deception, fraud, false pretense, false promise, or misrepresentation in connection with a consumer transaction." VA. CODE ANN. § 59.1-200.
  - 740. Ford is a "supplier" under VA. CODE ANN. § 59.1-198.
- 741. Each sale and lease of a Polluting Vehicle was a "consumer transaction" within the meaning of VA. CODE ANN. § 59.1-198.

- 742. Pursuant to VA. Code Ann. § 59.1-204, Plaintiffs seek monetary relief against Ford measured as the greater of (a) actual damages in an amount to be determined at trial and (b) statutory damages in the amount of \$500 for each Plaintiff. Because Ford's conduct was committed willfully and knowingly, Plaintiffs are entitled to recover, for each plaintiff, the greater of (a) three times actual damages or (b) \$1,000.
- 743. Plaintiffs also seek an order enjoining Ford's unfair and/or deceptive acts or practices, punitive damages, and attorneys' fees, and any other just and proper relief available under VA. CODE ANN. § 59.1-204 *et seq*.

### VIOLATION OF THE WASHINGTON CONSUMER PROTECTION ACT (WASH. REV. CODE ANN. § 19.86.010 ET SEQ.)

- 744. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 745. This claim is brought by Plaintiffs on behalf of Washington purchasers who are members of the Class.
- 746. The Washington Consumer Protection Act (Washington CPA) broadly prohibits "[u]nfair methods of competition and unfair or deceptive acts or practices in the conduct of any trade or commerce." WASH. REV. CODE. ANN. § 19.96.010.

- 747. Ford committed the acts complained of herein in the course of "trade" or "commerce" within the meaning of WASH. REV. CODE. ANN. § 19.96.010.
- 748. Ford is liable to Plaintiffs for damages in amounts to be proven at trial, including attorneys' fees, costs, and treble damages, as well as any other remedies the Court may deem appropriate under WASH. REV. CODE. ANN. § 19.86.090.

## VIOLATION OF THE WEST VIRGINIA CONSUMER CREDIT AND PROTECTION ACT (W. VA. CODE § 46A-1-101 ET SEQ.)

- 749. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 750. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend their complaint to bring this claim on behalf of West Virginia purchasers who are members of the Class.
  - 751. Ford is a "person" under W. VA. CODE § 46A-1-102(31).
- 752. Plaintiffs and West Virginia Class members are "consumers" as defined by W. VA. CODE §§ 46A-1-102(12) and 46A-6-102(2), who purchased or leased one or more Polluting Vehicles.
- 753. Ford engaged in trade or commerce as defined by W. VA. CODE § 46A-6-102(6).

- 754. The West Virginia Consumer Credit and Protection Act (West Virginia CCPA) prohibits "unfair or deceptive acts or practices in the conduct of any trade or commerce." W. VA. CODE § 46A-6-104. Without limitation, "unfair or deceptive" acts or practices include:
  - (I) Advertising goods or services with intent not to sell them as advertised; . . .
  - (L) Engaging in any other conduct which similarly creates a likelihood of confusion or of misunderstanding;
  - (M) The act, use or employment by any person of any deception, fraud, false pretense, false promise or misrepresentation, or the concealment, suppression or omission of any material fact with intent that others rely upon such concealment, suppression or omission, in connection with the sale or advertisement of any goods or services, whether or not any person has in fact been misled, deceived or damaged thereby; [and]
  - (N) Advertising, printing, displaying, publishing, distributing or broadcasting, or causing to be advertised, printed, displayed, published, distributed or broadcast in any manner, any statement or representation with regard to the sale of goods or the extension of consumer credit including the rates, terms or conditions for the sale of such goods or the extension of such credit, which is false, misleading or deceptive or which omits to state material information which is necessary to make the statements therein not false, misleading or deceptive.

# W. VA. CODE § 46A-6-102(7).

755. Pursuant to W. VA. CODE § 46A-6-106, once the statutory notice period has expired, Plaintiffs will amend to seek monetary relief against Ford measured as the greater of (a) actual damages in an amount to be determined at

trial and (b) statutory damages in the amount of \$200 per violation of the West Virginia CCPA for each Plaintiff.

- 756. Plaintiffs will also amend to seek punitive damages against Ford because it carried out despicable conduct with willful and conscious disregard of the rights of others, subjecting Plaintiffs to cruel and unjust hardship as a result.
- 757. Plaintiffs further seek an order enjoining Ford's unfair or deceptive acts or practices, restitution, punitive damages, costs of Court, attorney's fees under W. VA. CODE § 46A-5-101 *et seq.*, and any other just and proper relief available under the West Virginia CCPA.
- 758. On January 5, 2018, Plaintiffs sent a letter complying with W. VA. CODE § 46A-6-106(b) to Ford. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend their complaint to bring this claim on behalf of West Virginia purchasers who are members of the Class.

### **COUNT 56**

# VIOLATION OF THE WISCONSIN DECEPTIVE TRADE PRACTICES ACT (WIS. STAT. § 110.18)

- 759. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 760. This claim is brought by Plaintiffs on behalf of Wisconsin purchasers who are members of the Class.

- 761. The Wisconsin Deceptive Trade Practices Act (Wisconsin DTPA) prohibits a "representation or statement of fact which is untrue, deceptive or misleading." WIS. STAT. § 100.18(1).
- 762. Ford is a "person, firm, corporation or association" within the meaning of WIS. STAT. § 100.18(1).
- 763. Plaintiffs and Wisconsin Class members are members of "the public" within the meaning of WIS. STAT. § 100.18(1). Plaintiffs purchased or leased one or more Polluting Vehicles.
- 764. Plaintiffs are entitled to damages and other relief provided for under WIS. STAT. § 100.18(11)(b)(2). Because Ford's conduct was committed knowingly and/or intentionally, Plaintiffs are entitled to treble damages.
- 765. Plaintiffs also seek court costs and attorneys' fees under WIS. STAT. § 110.18(11)(b)(2).

# VIOLATION OF THE WYOMING CONSUMER PROTECTION ACT (WYO. STAT. § 40-12-105 ET SEQ.)

- 766. Plaintiffs hereby incorporate by reference the allegations contained in the preceding paragraphs of this complaint.
- 767. This claim is included here for notice purposes only. Once the statutory notice period has expired, Plaintiffs will amend their complaint to bring this claim on behalf of Wyoming purchasers who are members of the Class.

- 768. Pursuant to WYO. STAT. § 40-12-108(a), once the statutory notice period has expired, Plaintiffs will amend to seek monetary relief against Ford measured as actual damages in an amount to be determined at trial, in addition to any other just and proper relief available under the Wyoming CPA.
- 769. On January 5, 2018, Plaintiffs sent a letter complying with WYO.

  STAT. § 45-12-109 to Ford. If Ford fail to remedy their unlawful conduct, Plaintiffs will seek all damages and relief to which Plaintiffs are entitled.
- 770. Notice pursuant to: Alabama Code § 8-19-10(e); Alaska Statutes § 45.50.535; California Civil Code § 1782; Georgia Code § 10-1-399; Indiana Code § 24-5-0.5-5(a); Maine Revised Statutes, Title 5, § 50-634(g); Massachusetts General Laws Chapter 93A, § 9(3); Texas Business & Commercial Code § 17.505; West Virginia Code § 46A-6-106(b); and Wyoming Statutes § 40-12-109 was sent to Ford on January 5, 2018.

## **REQUEST FOR RELIEF**

WHEREFORE, Plaintiffs, individually and on behalf of members of the Nationwide RICO Class and State Classes, respectfully request that the Court enter judgment in their favor and against Defendants, as follows:

A. Certification of the proposed Nationwide RICO Class and State Classes, including appointment of Plaintiffs' counsel as Class Counsel;

В. Restitution, including at the election of Class members, recovery of the purchase price of their Polluting Vehicles, or the overpayment or diminution in value of their Polluting Vehicles;

C. Damages, including punitive damages, costs, and disgorgement in an amount to be determined at trial, except that monetary relief under certain consumer protection statutes, as stated above, shall be limited prior to completion of the applicable notice requirements;

D. An order requiring Defendants to pay both pre- and post-judgment interest on any amounts awarded;

An award of costs and attorneys' fees; and E.

Such other or further relief as may be appropriate. F.

### **DEMAND FOR JURY TRIAL**

Plaintiffs hereby demand a jury trial for all claims so triable.

DATED: January 10, 2018 Respectfully Submitted,

By /s/ Steve W. Berman

Steve W. Berman HAGENS BERMAN SOBOL SHAPIRO LLP 1918 Eighth Avenue, Suite 3300 Seattle, WA 98101 Telephone: (206) 623-7292 Facsimile: (206) 623-0594

steve@hbsslaw.com

E. Powell Miller (P39487) Sharon S. Almonrode (P33938) THE MILLER LAW FIRM PC 950 W. University Dr., Ste. 300 Rochester, MI 48307 Telephone: (248) 841-2200 Facsimile: (248) 652-2852 epm@millerlawpc.com ssa@millerlawpc.com

James E. Cecchi CARELLA, BYRNE, CECCHI, OLSTEIN, BRODY & AGNELLO, P.C. 5 Becker Farm Road Roseland, NJ 07068 Telephone: (973) 994-1700 Facsimile: (973) 994-1744 JCecchi@carellabyrne.com

Christopher A. Seeger SEEGER WEISS LLP 77 Water Street, New York, New York, NY 10005 Telephone: (212) 584-0700 Facsimile: (212) 584-0799 cseeger@seegerweiss.com

Attorneys for Plaintiffs and the Proposed Class