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IN THE CIRCUIT COURT FOR BALTIMORE CITY
CIVIL DIVISION

MARYLAND DEPARTMENT
OF THE ENVIRONMENT,

Plaintiff,

v.

VOLKSWAGEN AKTIENGESELLSCHAFT
d/b/a VOLKSWAGEN GROUP and/or
VOLKSWAGEN AG; AUDI AG;
VOLKSWAGEN GROUP OF
AMERICA, INC.; DR. ING. H.C. F.
PORSCHEAG d/b/a, PORSCHE AG;
and PORSCHE CARS
NORTH AMERICA, INC.,

Defendants.

CIVIL CASE NO:

* * * * *

COMPLAINT FOR CIVIL PENALTIES

1. The Maryland Department of the Environment (the "Department"), by its attorneys, Brian E. Frosh, Attorney General of Maryland, and Roberta R. James, Assistant Attorney General, brings this civil action against Defendants Volkswagen Aktiengesellschaft d/b/a Volkswagen Group and/or Volkswagen AG, Audi AG, Audi of America, Inc., Audi of America, LLC, Volkswagen Group of America, Inc., Dr. Ing. h.c. F. Porsche d/b/a Porsche AG, and Porsche Cars North America, Inc. (collectively, "Defendants" or "Volkswagen") to address violations of the State's ambient air quality control laws as provided in Title 2, Subtitle 6, of

the Environment Article, Annotated Code of Maryland, and Title 26, Subtitle 11 of the Code of Maryland Regulations (“COMAR”) and for reasons states:

INTRODUCTION

2. In an effort to protect the public health and to prevent the pollution of the ambient air caused by the emissions of regulated pollutants that exceed state limits, the Department brings this civil action for violations of portions of Maryland’s ambient air quality control law that prohibit the transfer of any vehicle into the State that is not in compliance with Maryland’s low vehicle emission program (Md. Code Ann., Envir. § 2-1104(b)), the low emissions vehicle program regulations (COMAR 26.11.34), and Maryland’s anti-tampering regulations (COMAR 26.11.20.02).

3. These violations occurred when Defendants manufactured and installed undisclosed “defeat devices” in certain Volkswagen, Audi, and Porsche vehicles and knowingly sold and transferred them into Maryland. The specific vehicles at issue are model year 2011 through 2015 diesel light-duty vehicles equipped with 2.0 liter and 3.0 liter engines. Defendants’ violations resulted in excess emissions of air pollutants, which have damaged, or been detrimental to, the quality of the air in this State.

4. Together with appropriate injunctive and equitable relief and its reasonable costs of investigation and litigation, the Department seeks the

imposition against Volkswagen of civil penalties in amounts sufficient to punish it for its conduct and deter it, as well as other would-be cheats, from repeating this form of misconduct, as well as the Department's reasonable costs of investigation and litigation, including reasonable attorney's fees.

5. Volkswagen defrauded the public and state regulators by using "defeat devices" – test recognition software commonly known in the industry as "cycle beaters" – to optimize the performance of emissions controls on their diesel vehicles during emissions tests, but which significantly reduced emissions controls during real-world driving conditions. It did so to conceal the fact that the vehicles: (1) did not comply, or come close to complying, with applicable state and federal emissions standards during normal driving, subjecting the American public to the health risks of added air pollution; and (2) were not the "clean," "green" vehicles described in its extensive marketing campaign aimed at American consumers.

6. Volkswagen has admitted all this. At a September 2015 event to promote the 2016 Passat, Michael Horn, then-President and CEO of Volkswagen Group of America, Inc., told the audience "[l]et's be clear about this. Our company was dishonest with the [U.S. Environmental Protection Agency] and the California Air Resources Board ["CARB"] and with all of you, and, in my German words, we have totally screwed up."

7. A few weeks later, in prepared testimony before the House Committee on Energy and Commerce Subcommittee on Oversight and Investigations on October 8, 2015, Horn offered more detail, confirming “that emissions in [Volkswagen’s] four cylinder diesel vehicles from model years 2009-2015 contained a ‘defeat device’ in the form of hidden software that could recognize whether a vehicle was being operated in a test laboratory or on the road. The software made those [vehicles] emit higher levels of nitrogen oxides when the vehicles were driven in actual road use than during laboratory testing.”

8. The decision to install defeat devices was not made by “a couple of software engineers,” as Horn suggested in his testimony. Nor was it confined to the 2.0 liter diesel vehicles that were the focus of the 2014 independent study that led to the exposure of Volkswagen’s fraud to the public. Rather, it was the result of a willful and systematic scheme of cheating with regard to emissions testing, after Volkswagen was unable or unwilling to manufacture diesel vehicles that would meet United States standards without sacrificing gas mileage, durability and performance. This scheme, which extended over nearly a decade, was perpetrated by Volkswagen AG and its Audi, Volkswagen and Porsche subsidiaries, through dozens of their employees, executives, and officers.

9. Defendants’ unlawful conduct involved different engineering and testing teams operating across different facilities at different locations in both

Germany and the United States and the placement of the illegal defeat devices in over a dozen separate U.S.-market Audi, Volkswagen, and Porsche models equipped with 2.0 liter and 3.0 liter diesel engines (the “Subject Vehicles”)¹ from the 2011-2015 model years, which were sold between 2010 and 2015.

10. Volkswagen’s illegal and deceptive conduct had several interrelated objectives: (1) increasing sales and market share in the U.S., part of the company’s stated goal of becoming the world’s highest-selling car manufacturer; (2) falsely marketing “green” diesel vehicles to create an environmental “halo” effect (and thus boost brand equity) across the full spectrum of the company’s car offerings; (3) enabling Volkswagen to bring diesel cars to the U.S. market more rapidly and more cheaply than building truly emissions-compliant engines would permit; (4) allowing Volkswagen and Audi to compensate for and conceal a number of technological and design deficiencies, including durability problems associated with several of its key drivetrain components, such as diesel particulate filters, and significantly undersized urea tanks in Subject Vehicles equipped with selective catalytic reduction system.

11. For years after its initial adoption of defeat devices in the Audi Q7 SUV and the Volkswagen Jetta, and as new diesel car models were introduced or updated, Volkswagen continued to cheat by adapting its cycle-beating software to the modified engines and emissions systems associated with the newer models.

¹ The Subject Vehicles are identified in the chart at pages 20-21, *infra*.

12. Even when independent real-world driving test results threatened public exposure of Volkswagen's deception, the company continued to actively conceal the existence of the defeat devices by repeatedly denying the validity of testing that exposed the gap between the Subject Vehicles' emissions on the road, as contrasted with emissions in testing conditions, and by conducting sham recalls in 2014-2015 to deflect regulatory scrutiny about the emissions problems. Indeed, even after state and federal regulators began asking tough questions in April 2014, Defendants continued their deceptive marketing campaign in the United States, spending tens of millions of dollars to promote the Subject Vehicles as "clean" and "green," and selling more than 144,000 of the Subject Vehicles from April 2014 (when the Subject Vehicles' high real driving NO_x (oxides of nitrogen) emissions first came to light in the U.S.) through September 2015.

13. As a result of Volkswagen's scheme, the Subject Vehicles were certified for sale throughout the United States, enabling Volkswagen to sell nearly 600,000 Subject Vehicles nationwide and nearly 13,000 in Maryland. Based on initial estimates, the defeat devices were responsible for more than 45,000 additional tons of NO_x pollution being emitted into the air from these vehicles driven on highways and streets in Maryland and in other states, exacerbating asthma and other respiratory diseases of those who breathed them.

14. Because internal combustion engines emit a variety of air pollutants harmful to human health and the environment, and motor vehicles are a significant source of air pollution, the federal Clean Air Act requires the Administrator of the Environmental Protection Agency (“EPA”) in Section 202 to establish national emission standards for new motor vehicles. 42 U.S.C. § 7521. Section 177 of the Act, 42 U.S.C. § 7507, authorizes the State of California to adopt emission standards more stringent than the federal standards, and further authorizes other states to adopt those same standards for new motor vehicles sold within their states.

15. Maryland has adopted as state law California’s strict emission control standards for NO_x emissions as part of Maryland’s effort to address pervasive ground-level ozone (smog) pollution, particularly in the Baltimore City metropolitan area and the I-95 corridor. Ozone is formed when NO_x, emitted by motor vehicles and other sources, combines in the atmosphere with volatile organic compounds (“VOCs”) in a complicated reaction in the presence of heat and sunlight. Ozone causes or contributes to many human respiratory health problems, including chest pains, shortness of breath, coughing, nausea, throat irritation and increased susceptibility to respiratory infections, such as asthma, and disproportionately affects vulnerable members of society, particularly children and the elderly.

16. Emissions of NO_x also impact the Chesapeake Bay, fine particulate pollution in Maryland, and regional haze problems in national parks across the East. NO_x emissions cause eutrophication of, and excess nutrient loading in, the Chesapeake Bay and other waters and reduce the diversity of fish and other life in these waters. NO_x emissions, along with sulfur dioxide found in the atmosphere from other sources, contribute to the creation of fine nitrate and sulfate particles. Like ozone, fine particulate matter affects Maryland's residents by causing human respiratory distress, cardiovascular disease, and even premature mortality.

17. Emissions of NO_x also contribute significantly to visibility and regional haze problems at national parks across the East. Maryland, as well as other states, are making progress in meeting the Clean Air Acts requirements to improve visibility and reduce regional haze, but significant additional progress is needed and additional NO_x reductions will be critical. The excess emissions from Volkswagen's violating vehicles has only hindered this progress.

18. With utter disregard for the environment and the health effects of its conduct, Volkswagen implemented the emissions control defeat devices in willful contempt of the environmental laws of the State of Maryland and other United States jurisdictions.

19. Volkswagen evidently believed that its deceit would go undetected, or that even if caught, the consequences would be manageable. A February 29,

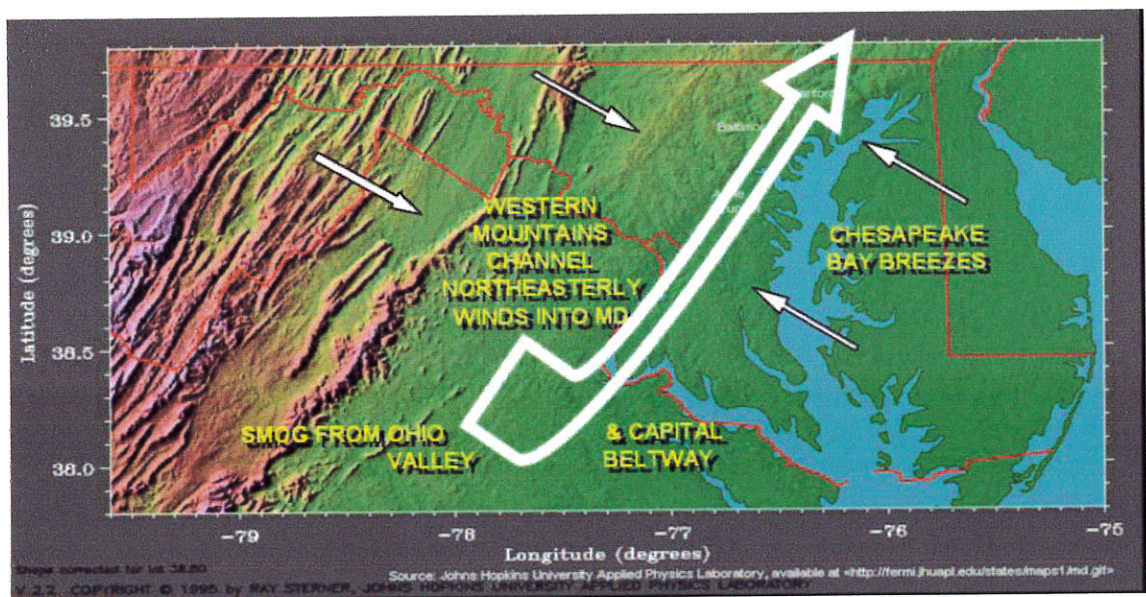
2016, court filing by Volkswagen in a European shareholder lawsuit provides an illuminating insight into assessment of the costs and benefits of choosing to break the law:

[B]eginning in the 1970s, violations of the prohibition against defeat devices under U.S. environmental law had recurred at irregular intervals in the United States, the theoretical possibility that sanctions might be imposed due to a potential violation of U.S. environmental protection provisions seemed at the time to pose only a moderate cost risk. The fines imposed for such violations in the 1990s against automobile manufacturers that were also well-known (including General Motors, Ford, and Honda) were for relatively low amounts. Even the highest fine to date, which amounted to U.S.-\$ 100 million and was imposed in 2014 against the Hyundai/Kia group, was at the lower end of the statutory range of fines. This case involved roughly 1.1 million vehicles, which works out to a fine of barely U.S.-\$ 91 per vehicle. It is obvious that fines in this amount are not even remotely capable of influencing the share price of a globally operative company such as VOLKSWAGEN. Even if the fine were U.S.-\$ 100 per vehicle, the total penalty in the present case would amount to U.S.-\$ 50 million, which would have no potential effect whatsoever on share prices.

20. The stubborn and unrepentant corporate culture which spawned the systematic cheating and deception described in this Complaint has been highlighted by the destruction of documents by Volkswagen employees in the wake of the defeat device scandal even after being alerted to an impending litigation hold, and the recent recommendation by the Volkswagen AG Supervisory Board to award Management Board members \$70 million in executive compensation for 2015 alone.

21. Volkswagen's actions as they impact Maryland are all the more egregious given the particularly important role that additional NOx reductions

could have played in further cleaning up the air in Maryland. Ozone levels in Maryland are subject to the “perfect storm” for ozone air pollution, where unique meteorology and geography line up with transported pollution from vehicles and power plants west of Maryland and local pollution from the south, primarily cars and trucks along the I-95 corridor.



22. In spite of this challenging topography and the meteorological challenges that Maryland faces; however, the General Assembly, through the Healthy Air Act and the Clean Cars Act, and the Department, through more stringent regulations on a wide variety of NO_x sources, have made significant progress to reduce NO_x and ozone.

23. Volkswagen’s surreptitious actions, however, did not only violate Maryland law and regulations, but have the potential to hinder all the progress

made in Maryland as well as the Department's time and effort expended to make those reductions.

24. On June 28, 2016, Volkswagen announced that it had reached a partial settlement that, if approved by a federal court, would resolve (a) claims brought by car owners and the Federal Trade Commission for consumer deception in connection with its marketing and sale of the 2.0 liter Subject Vehicles, and (b) claims for injunctive relief to redress environmental harm brought by the U.S. Environmental Protection Agency, California, and the California Air Resources Board. On the same date, many states, including Maryland, announced that they had settled their claims against Volkswagen for penalties arising under state laws that prohibit consumer deception. None of these settlements address the civil penalty claims of the state governments, including Maryland, for Volkswagen's systematic, repeated and egregious violations of state environmental laws; indeed, Volkswagen's liability for appropriately stiff environmental penalties, which is the subject of the present Complaint, was expressly left open by Maryland and other states in their partial settlement with Volkswagen.

I. PARTIES

20. The Department is an agency of the State of Maryland. The Secretary of the Department is charged with responsibility for implementing and

enforcing State laws governing air pollution. The relevant statutory authority is set forth in Title 2, Subtitle 6 of the Environment Article.

21. Volkswagen Aktiengesellschaft (“Volkswagen AG”) is a corporation organized under the laws of Germany and has its principal place of business in Wolfsburg, Germany. According to Volkswagen AG’s 2015 Annual Report, its sales revenue for North America was over € 35.384 billion in 2015 (€ 7.784 billion more than in 2014).

22. Volkswagen AG is the parent company of the Volkswagen Group (“VW Group”) – an organizational and trade term referring to Volkswagen AG’s automotive brands (including Volkswagen Passenger Cars and subsidiaries Audi and Porsche) and financial services business.

23. Volkswagen AG and the VW Group are managed by Volkswagen AG’s Board of Management. A Supervisory Board appoints, monitors, and advises the Board of Management and issues its rules.

24. Each brand in the VW Group also has its own Brand Board of Management. The members of the Brand Boards of Management manage their respective brands, pursuant to targets and requirements laid down by the Volkswagen AG Board of Management.

25. Audi AG (“Audi”) is a member of the VW Group. Audi is a corporation organized under the laws of Germany, has its principal place of

business in Ingolstadt, Germany, and 99.55% of its stock is owned by Volkswagen AG.

26. Volkswagen Group of America, Inc. ("VW America") is a New Jersey corporation that registered to do business in Maryland on December 19, 1963. VW America does business in all fifty states and the District of Columbia and maintains a principal place of business located at 2200 Ferdinand Porsche Drive, Herndon, Virginia. VW America is a wholly-owned subsidiary of Volkswagen AG. VW America is closely controlled and directed by Volkswagen AG. Within VW America, the Engineering and Environmental Office ("EEO") interacts with U.S. regulators and handles regulatory compliance and certification-related issues for Volkswagen AG and Audi AG.

27. Audi AG ("Audi") is a member of the VW Group. Audi is a corporation organized under the laws of Germany and has its principal place of business in Ingolstadt, Germany. Volkswagen AG, which owns 99.55% of Audi's stock, controls Audi. Audi of America, LLC, also known as Audi of America, Inc. is an operating unit of and wholly owned by VW America. VW America is responsible for the acts of Audi of America in the State and the U.S. Audi of America is closely controlled and directed by Volkswagen AG and Audi AG.

28. Dr. Ing. h.c. F. Porsche d/b/a Porsche AG ("Porsche") is a member of the VW Group. Porsche is a corporation organized under the laws of Germany,

has its principal place of business in Stuttgart, Germany, and is a wholly-owned subsidiary of Volkswagen AG.

29. Porsche Cars North America, Inc. ("Porsche NA") is a Delaware corporation that registered to do business in Maryland on January 21, 1985. Porsche NA has its principal place of business at One Porsche Drive, Atlanta, Georgia. Porsche NA is a wholly-owned subsidiary of Porsche and is closely controlled and directed by Porsche.

II. JURISDICTION AND VENUE

28. This Court has jurisdiction over the subject matter of this action, personal jurisdiction over the Defendants, and authority to grant the relief requested pursuant to §§ 1-501, 6-102, and 6-103 of the Courts and Judicial Proceedings Article, Annotated Code of Maryland.

29. At all relevant times, Volkswagen AG, its subsidiaries Audi AG and Porsche, and their subsidiaries VW America and Porsche NA, have purposefully availed themselves of this forum. Among other things, Volkswagen AG, Audi AG and Porsche:

- a. designed and transferred into Maryland the Subject Vehicles, with their defeat device software;

b. directed VW America's EEO and Porsche NA to submit to U.S. regulators applications for certification to sell the Subject Vehicles in the U.S., including within Maryland;

c. directed VW America's EEO and Porsche NA to make periodic submissions and certifications regarding the Subject Vehicles' compliance with applicable emissions standards and requirements to the Department, as required by the COMAR 26.11.34.13; and

d. directed VW America, AoA and Porsche NA to expressly warrant to Maryland buyers and lessees the Subject Vehicles' compliance with applicable emissions standards.

30. In addition to transacting business in Maryland through more than twenty-seven Maryland dealers, Defendants conduct business from at least one Maryland location: the Training Center/TSC/Group Academy, 10621 G. Iron Bridge Road, Jessup, MD 20794.

31. The exercise of jurisdiction over all Defendants is therefore consistent with due process.

32. Venue is proper in this Court pursuant to § 6-201(a) of the Courts and Judicial Proceedings Article, and pursuant to § 2-610(a) of the Environment Article, which authorizes the Department to collect a civil penalty of up to \$25,000 per violation in a civil action in the circuit court for any county.

III. FACTS

A. The Defendants Acted in Concert to Violate Environmental Laws.

34. Unless otherwise stated, the allegations set forth in this Complaint are based upon information obtained from documents produced by Defendants, testimony of Defendants' current and former employees, publicly available press reports, and information and documents obtained from other third-party sources through Plaintiff's investigatory efforts.

35. At all times material to this Complaint, the Defendants worked in concert with the common objective of engaging in the emissions cheating scheme described in this Complaint. Each of the Defendants was, and still is, the agent of the others for this purpose, and each has acted, and is acting, for the common goals and profit of them all. Therefore, all acts and knowledge ascribed to one of them are properly imputed to the others. Among other things:

b. Volkswagen AG allocates and controls the overall research and development and marketing budgets for the brands in the VW Group;

c. For the Subject Vehicles that Volkswagen, Audi and Porsche sold in the United States, VW America's EEO acted as their representative before U.S. regulators for compliance and certification-related issues;

d. Audi of America, Inc. is an operating unit of VW America;

e. The three brands share engineering research and development and engine concepts and designs, including in this case Volkswagen's incorporation of Audi-designed software and hardware elements into its EA 189 diesel engine for the Generation 1 and 2 Subject Vehicles, and Porsche's use of the Audi 3.0 liter diesel engine for its Cayenne SUV Subject Vehicle;

f. Officers and employees of the Defendants, including several of those involved in the unlawful conduct described in this Complaint, are shared among the Defendants, and moved from the employ of one Defendant to another. Among other examples:

i. Martin Winterkorn served as CEO of Audi AG from 2002 to 2007, when the defeat devices were first developed, before being elevated in 2007 to CEO at Volkswagen AG, a position he held until shortly after Defendants' unlawful conduct was publicly exposed in September 2015;

ii. Wolfgang Hatz led Audi's Powertrain Department (engines and transmissions) from 2001 to 2007,

when Audi developed its first defeat device on its 3.0 liter V6 diesel for the European market. In 2007, Hatz assumed the same role at Volkswagen, just as Volkswagen was finalizing its own defeat devices for its U.S.-market 2.0 diesels. In 2011, he moved to the top engineering job at Porsche, where he oversaw that company's rollout of a defeat-device equipped 3.0 liter Audi V6 to the U.S. market the following year;

iii. Ulrich Hackenberg held senior engineering positions, including emissions responsibilities, at Audi from 2002 to 2007, then at Volkswagen from 2007 to 2013, when both companies were developing and implementing their defeat device strategies, before moving back to Audi from 2013 to 2015;

iv. Oliver Schmidt, who headed the EEO office within VW America in 2014 and early 2015 before returning to Volkswagen AG in Germany, played an important role from both positions in Defendants' efforts to conceal from U.S. regulators the true reason for the Subject Vehicles'

unlawfully high real-world NO_x emissions first detected in Spring 2014; and

v. James Liang was one of the engineers at Volkswagen AG in Wolfsburg, Germany directly involved in the development of the defeat device for the Generation 1 Volkswagen Jetta in 2006; by 2014-15, he was conducting tests for VW America at its Oxnard, California facility as part of Defendants' efforts to conceal from regulators that the defeat devices were responsible for the Subject Vehicles' illegal emissions.

g. Senior management at Volkswagen AG and Audi AG discussed, planned and coordinated the response to the diesel scandal as it unfolded for Volkswagen, Audi, and Porsche in the United States.

36. At a minimum, each of the Defendants knowingly and intentionally provided each of the other Defendants with substantial assistance, or aided and abetted one another, in carrying out individual company-by-company unlawful emissions schemes as described in this Complaint.

37. Each Defendant engaged in multiple violations of the State's environmental laws. The conduct of each of Volkswagen AG, Audi AG, Porsche and VW America was knowing and willful.

B. Defendants Launched the Subject Vehicles in the U.S.

38. Beginning in the 1990s, Volkswagen rapidly expanded its sales of diesel light duty vehicles in Europe. After success in Europe, and in response to Toyota's commercial growth in the U.S. with its environmentally advanced hybrid technology, Volkswagen began to design and develop and ultimately marketed and sold a line of diesel turbocharged direct injection 2.0 and 3.0 liter light duty diesel vehicles (the Subject Vehicles) throughout the U.S., including in Maryland.

39. Through its marketing and advertising, Volkswagen sought to transform the reputation of diesel engines among American consumers as noisy and smoky workhorses best left to trucks and buses into one of smooth-running, high-technology automotive engines that would deliver fuel efficiency, high performance and low NO_x emissions.

40. The Subject Vehicles include the following makes and models sold or leased in Maryland for the 2011 through 2015 model years:

2.0 Liter Diesel Models

Model Year (MY)	Generation	EPA Test Group(s)	Vehicle Make and Model(s)
2011	Gen1/EA189	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	Gen 1/EA189	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	Gen 1/EA189	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3

2014	Gen 1/EA189	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen
2012 2013 2014	Gen 2 EA189	CVWXV02.0U4S DVWXV02.0U4S EVWXV02.0U4S	VW Passat
2015	Gen 3/EA288	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

3.0 Liter Diesel Models

Model Year (MY)	EPA Test Group(s)	Vehicle Make and Model(s)
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG	VW Touareg Audi Q7
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Porsche Cayenne Diesel Audi A6 Quattro, A7 Quattro, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi Q7 Porsche Cayenne Diesel Audi A6 Quattro, A7 Quattro, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Porsche Cayenne Diesel Audi A6 Quattro, A7 Quattro, A8L, Q5

41. For purposes of simplicity and clarity, throughout this Complaint:

b. the 2.0 liter Generation 1/EA-189s, the Generation 2/EA-189s, and Generation 3/EA-288s identified above will be referred to, respectively, as “Generation 1s,” “Generation 2s,” and “Generation 3s,” and collectively as “2.0s”;

c. the 3.0 liter models will be referred to collectively as “3.0s”;
and

d. the 2.0s and 3.0s will be referred to collectively as “the Subject Vehicles.”

42. Defendants sold, leased, and warranted nearly 500,000 2.0s and more than 88,000 3.0s in the United States.

43. Nearly 13,000 Subject Vehicles were sold or leased in Maryland. As of October 1, 2015, 12,935 Subject Vehicles were registered through the State’s Motor Vehicle Administration (“MVA”).

44. As described directly below, the diesel exhaust after-treatment technology Volkswagen designed and implemented in the Subject Vehicles changed over time and across engine generations, but certain key emissions control features remained constant: all the Subject Vehicles employed exhaust gas recirculation (“Exhaust Gas Recirculation” or “EGR”) and were equipped with a diesel particulate filter (“Diesel Particulate Filter” or “DPF”).

45. Exhaust Gas Recirculation is used primarily to reduce NO_x emissions by diverting exhaust gases to the intake system and mixing them with fresh air, thereby “thinning” the fresh air, lowering the combustion temperature and reducing the creation of NO_x .

46. The Diesel Particulate Filter filters particulate emissions, or “soot,” from the engine exhaust stream. It must be emptied (or “regenerated”) at regular intervals in order for the DPF to control particulate emissions as intended.

47. While both technologies have emissions-related advantages (reducing NO_x emissions in the case of EGR and reducing soot emissions in the case of the DPF), they also have disadvantages:

a. Use of Exhaust Gas Recirculation increases particulate emissions (soot), and necessitates more frequent DPF regeneration to prevent clogging, thereby placing strain on the DPF and increasing the risk of premature DPF failures.

b. Regeneration of the Diesel Particulate Filter increases NO_x emissions, increases fuel consumption and places strain on the engine and the components of the emissions control system, including the DPF, due to the high temperatures needed for regeneration.

48. As the course of conduct described below demonstrates, Volkswagen was unwilling to spend the time or money necessary to address these engineering challenges in a lawful manner.

C. Volkswagen's Defeat Device Development and Implementation was not an Isolated Event but an Iterative Process Across Different Emissions Control Systems and Different Lines of Vehicles.

49. In trying to leverage its existing diesel engine technology for the U.S. market, Volkswagen faced an engineering challenge: diesel engines, which generally emit quite small amounts of hydrocarbons, emit high amount of NO_x, making compliance with various NO_x emissions regulation particularly challenging.

50. In order to sell the Subject Vehicles in Maryland, Volkswagen needed to apply for and obtain Executive Orders from CARB. In those applications, Defendants were required to, among other things, disclose all Auxiliary Emissions Control Devices ("AECDs") on the vehicles, *i.e.*, any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system. For each such AECD, Volkswagen was required to provide: a written, detailed justification; the parameters it senses and controls; and a rationale for why the AECD is not a "defeat device."

51. An AECD that operates to defeat an emissions testing regime by reducing the effectiveness of emission control systems under conditions which may reasonably be expected to be encountered in normal vehicle operation is known in the industry as a “cycle-beater,” and in U.S. legal terms, as a “defeat device.” Deployment of defeat devices has long been illegal in Maryland. *See* Section IV (Regulatory Background), *infra*.

52. Defendants submitted documentation to the Department showing that CARB had certified the Defendants’ Generation 1s, the Generation 2s and the 3.0s to LEV II (“LEV II”) emissions standards, which impose a NO_x emission limit of .05 g/mi at 50,000 miles and .07 g/mi at the Full Useful Life of 120,000 miles.

53. Defendants submitted documentation to the Department showing that CARB had certified the Defendants’ Generation 3s to the LEV III/ULEV125 (“LEV III”) emissions standards, which imposed a combined non-methane organic gas and NO_x limit of .125 g/mi and a durability standard of 150,000 miles.

54. Unable and unwilling to design and manufacture the Subject Vehicles so that they would meet these standards in all conditions (during laboratory testing and in real driving conditions, in the customer’s hands), Defendants installed the prohibited defeat devices.

55. Defendants implemented the defeat device in the form of test recognition software in the Subject Vehicles' engine control units ("ECUs") that recognized when the Subject Vehicles were undergoing laboratory test cycles on a rolling dynamometer (also known as a "treadmill" or "roller" or "dyno") using time and temperature parameters, among others. When the software detected a test cycle, it optimized the emissions controls to bring emissions into compliance with applicable standards. Outside of the test cycle, the software lowered the emissions controls, resulting in NO_x emissions far in excess of regulatory limits.

i. The First Defeat Device: Audi's Model Year 2004-2008 V6 for the European Market

56. Audi encountered early emissions-related engineering challenges in 1999, as it embarked on the development of its large 3.0 liter V6 diesel luxury cars for the European market.

57. Engineers at Audi AG headquarters in Neckarsulm, Germany had developed a new technology for the engine called "Pilot Injection" that could eliminate the traditional, disagreeable clattering noise of diesel engines at start-up through the injection of additional fuel into the engine on ignition. However, activation of Pilot Injection upon ignition caused the engine to exceed European emissions standards during European authorities' "dyno" testing.

58. Audi solved this problem by implementing defeat device software that allowed the engine to recognize the European emissions test cycle and deactivate Pilot Injection during testing.

59. Audi developed and deployed this cycle-beating defeat device software on its European-market Audi 3.0-liter V6 diesels from 2004-2008. Because of its noise-reducing properties, Audi dubbed this defeat device the “Acoustic Function.”

ii. The Second Defeat Device: Volkswagen’s Generation 1s

60. In the early-to-mid 2000s, as it was planning to launch its Generation 1 diesels in the U.S., Volkswagen explored equipping its Generation 1 engines with selective catalytic reduction (“Selective Catalytic Reduction” or “SCR”) technology. SCR technology chemically reduces NO_x emissions by spraying liquid urea (sometime called by its trade name “AdBlue”) in the exhaust stream, thereby creating N₂ and H₂O. The SCR technology available at the time, however, was licensed by Volkswagen’s competitor, Mercedes-Benz; in addition, as with any SCR system, it would have required outfitting the Generation 1s (including the small, model year 2009 Jetta) with one or more tanks capable of storing gallons of the urea-based emissions fluid.

61. In 2006, the engineers and managers responsible for developing the Generation 1s’ EA 189 engine decided against using SCR technology in favor of a

simpler, in-house emissions reduction system, known as a Lean-NO_x Trap (“Lean Trap”), which did not depend on SCR and therefore did not require urea tanks.

62. Rather, the Lean Trap operated by trapping the NO_x emissions in a catalytic converter and then periodically running the engine in a fuel-rich mode to “regenerate” the catalytic converter, thereby converting the NO_x it stored into nitrogen dioxide (NO₂).

63. Early in the development of the Lean Trap system, however, it became apparent to Volkswagen’s engineers that regenerating the Lean Trap and EGR as frequently as necessary to bring NO_x emissions within legal limits produced excess soot for the DPF, thereby requiring more frequent emissions- and fuel-intensive DPF regenerations that strained the engine. The excess soot would in turn clog and break the engine’s DPF within just 50,000 miles of operation. This is far sooner than the original 120,000-mile, then later 150,000-mile, Full Useful Life durability standard that the vehicles were required to meet in the U.S.

64. In late 2006, facing these major engineering challenges and a management-imposed production deadline, and with the knowledge and approval of their managers, Volkswagen’s engineers in Wolfsburg adapted Audi’s “Acoustic Function” defeat device to overcome these issues.

65. Like the Audi defeat device, the defeat devices Volkswagen implemented in the Generation 1s featured software that could detect when the

vehicles were undergoing a dyno test based on, among other parameters, temperature and time. During a dyno test, the defeat device software operated to substantially increase the frequency of Lean Trap regenerations and increase EGR to bring NO_x emissions down to compliant levels. In contrast, during real driving conditions, the defeat device software substantially reduced the frequency of Lean Trap regenerations and reduced EGR resulting in NO_x emissions between 15 and 35 times the legal limit.

66. Volkswagen incorporated the Lean Trap regeneration and EGR defeat devices described directly above in the ECUs of the 2009-2014 Jetta, Golf, A3 and New Beetle diesel models. Over 300,000 of the Generation 1 vehicles were sold in the United States.

iii. The Third Defeat Device: Audi's 3.0 SUVs

67. At the same time that Volkswagen engineers in Wolfsburg were developing the Generation 1 diesel engine, their colleagues at Audi's Neckarsulm headquarters were developing a U.S.-market 3.0 liter diesel engine for the anticipated release in model year 2009 of a new line of luxury diesel SUVs in the U.S. market: the Selective Catalytic Reduction-equipped Audi Q7 and Volkswagen Touareg.

68. Adaptation of its European SCR technology for the U.S. market presented a challenge: to comply with more stringent U.S. NO_x limits and an EPA

rule that tied urea tank refills to the manufacturer's service intervals, Audi's 3.0 liter vehicles in the United States would require larger urea tanks than their European counterparts.

69. In or around July 2006, the issue of the effect of undersized urea tanks on the ability to comply with emissions standards reached the attention of Martin Winterkorn, then the CEO of Audi AG (and later of the Group parent company, Volkswagen AG), as well as "H. Müller," which another Audi executive testified is a reference to Matthias Muller, then the head of Project Management for Audi AG and now Mr. Winterkorn's successor as CEO of Volkswagen AG.

70. Ultimately, Volkswagen and Audi decided not to expend the time and money necessary to re-engineer the 3.0s to equip them with larger urea storage tanks. Nor did they seek to address the storage tank issue, as they could have, by shortening the length of the service interval set forth in their applications for certification. Some competitors, for example, had service intervals as low as 7,500 or even 5,000 miles; Volkswagen and Audi, however, chose to maintain a 10,000-mile service interval.

71. Instead, Volkswagen and Audi decided once again to employ cycle-beating defeat device software.

72. In addition to the EGR defeat device implemented in the Generation 1s, the 3.0s also featured a urea dosing defeat device. The urea dosing defeat device operated to increase urea dosing during dyno testing and to reduce the urea dosing to an artificial limit during real driving conditions to enable the too-small urea tanks to last for 10,000 miles between service intervals.

73. Audi approved and installed both the urea-dosing defeat device and the EGR defeat device for production in the 3.0s for sale in the U.S. market from 2009-2016, resulting in NO_x emissions of roughly nine times the legal limit in everyday driving conditions.

iv. The Fourth Defeat Device: Volkswagen's Generation 2s

74. In 2009, Volkswagen turned its attention to the planned roll-out in the U.S. of the model year 2012 Generation 2 SCR-equipped Passat, a model heavier than its Generation 1 predecessors and therefore unsuitable for a Lean Trap emissions control system. In designing an SCR-equipped emissions system for the Passat, however, Volkswagen's engineers now faced the same quandary their Audi colleagues had confronted – insufficient space in the vehicle package to incorporate urea tanks large enough to meet the 10,000 mile refill interval to which they certified the Generation 2s.

75. Rather than resolving this engineering problem (or seeking to mitigate it by certifying the vehicles to shorter service intervals), Volkswagen

opted to implement EGR and urea dosing defeat devices. Once the ECU recognized the vehicle was in a test environment based on various inputs including vehicle speed, timing and (in the Generation 2s) steering wheel angle, the defeat devices increased EGR and urea dosing to bring the NO_x emissions within regulatory limits. Outside of test conditions, however, the cycle-beating defeat devices reduced the urea dosing rate by half to conserve urea and reduced Exhaust Gas Recirculation.

76. With the approval of Volkswagen supervisory executives, company engineers went forward with the dosing- and EGR-defeat devices, installing them in roughly 80,000 Volkswagen Passats in the U.S. market spanning from model year 2012 to model year 2014. As a result, in real-world conditions, the Generation 2.0s sold in Maryland exceeded lawful NO_x emissions levels by some five to twenty times.

v. The Fifth Defeat Device: The Porsche Cayenne

77. In 2010, Volkswagen AG acquired Porsche, and the members of the founding family of Porsche became Volkswagen's leading shareholders. The following year, Porsche too decided it wanted to enter the U.S. diesel market with its new Cayenne SUV.

78. Porsche approached its sister company Audi about acquiring Audi's 3.0 liter V6 diesel engine for use in the Cayenne. Audi agreed to supply Porsche

the U.S.-market 3.0, lightly re-tuned for Porsche. In supplying the engine, Audi personnel educated their counterparts at Porsche about the engine's primary features, including the urea dosing strategy.

79. In communications in or around September 2011 that included Audi engineer Martin Gruber, the then-head of Volkswagen AG Engine Development, Ulrich Hackenberg, and Porsche's electronics development chief, Carsten Schauer, among others, Audi explained to Porsche personnel the 3.0s' urea tank-size limitation, the EPA requirement tying urea refills to service intervals, and the resulting urea-dosing strategy that Audi had devised.

80. Notwithstanding this information, Porsche's engineering department, then led by Wolfgang Hatz, proceeded to source the Audi defeat-device equipped 3.0 liter engine for its entry into the U.S. diesel market with the model year 2013 Cayenne diesel SUV.

81. With the defeat device, Porsche Cayennes are estimated to emit NO_x at roughly nine times the legal limit.

vi. The Sixth Defeat Device: Volkswagen's Generation 3s

82. In or about 2013, Volkswagen decided to discontinue the Lean Trap emissions system in favor of an SCR-based system for all its model year 2015 2.0s (the Beetle, Golf, Jetta, Passat, and the Audi A3).

83. In doing so, Volkswagen again opted to implement EGR and urea-dosing defeat devices like those it implemented in the Generation 2s and 3.0s.

84. Volkswagen sold nearly 100,000 model year 2015 Generation 3s. Many of the cars were sold even after Defendants became aware that independent real-world studies had made clear that the Subject Vehicles were emitting NO_x in real driving conditions far in excess of the legal limits.

D. Volkswagen and Audi Implemented the Cycle-Beating Defeat Devices at Issue Fully Knowing They Were Illegal.

85. From the inception of its 2006 plan to launch the Subject Vehicles in the United States, Volkswagen intensively researched whether it could pass off the various defeat devices as legally-permitted (if disclosed) Emission Increasing-Auxiliary Emission Control Devices.

86. Emission Increasing-Auxiliary Emission Control Devices may be legal if they are designed to run only in limited, extreme driving circumstances to protect the engine, but only if (a) the automaker discloses them to the regulators; and (b) the regulators determine the software is not actually designed primarily to cheat the emissions test.

87. On October 3, 2006 multiple executives and managers from Volkswagen AG (Richard Dorenkamp, Dr. Achim Freitag, James Liang, Juergen Peter, Detlef Stendel, and Burkhard Veldten), Audi AG (Klaus Appel, Dr. Armin Burkardt, Carsten Nagel, and Giovanni Pamio) and the U.S. affiliate VW

America's EEO (Leonard Kata and Norbert Krause) met with CARB officials to provide a "technical description of future light-duty diesel emission control strategies [Lean Trap and SCR] and to discuss emission certification implications (e.g., timing)." According to Volkswagen's Meeting Report, during the meeting, CARB officials repeatedly requested "additional detail regarding AECDs." The report documents that, as a follow-up, "EEO, Volkswagen AG, and Audi AG [agreed] to review regulations to help identify AECDs, particularly [Emissions Increasing]-AECDs." They further promised to provide CARB a more complete description of the AECDs by Spring 2007, in particular noting: "[p]er ARB request, identify, describe function (e.g., activate, deactivate, or modulate the operation of emission control devices), describe effect on emission levels[.]"

88. Following the October 3, 2006 meeting with CARB, the topic of AECDs and defeat devices became a subject of intensive internal discussion at Volkswagen and Audi, both in Germany and the United States. In an email to several of his VW America colleagues and multiple engineers at Audi AG and Volkswagen AG in November 2006, VW America EEO official Stuart Johnson explained, "almost all AECDs are really calibration issues and strategies, such as having a timing shift for engine starts, shutting off EGR [sic] certain modes such as extended idle to prevent plugging, timing changes for altitude, etc. . . .The agencies are really focused on how often an AECD is used." He referenced an

earlier lawsuit in which heavy-duty engine manufacturers were caught using “cycle beating strategies [with] timers on them that enacted the injection timing change once the engine was in a mode for a specific length of time” as a “clear violation of the spirit of the emission regulations and the certification test procedure.”

89. A few days later, Leonard Kata, Manager of Emission Regulations and Certification at VW America EEO, emailed multiple Volkswagen AG and Audi AG managers noting:

In connection with the introduction of future diesel products, there has been considerable discussion recently regarding the identification of Auxiliary Emission Control Devices (AECDs) . . . The agencies’ interest in the identification of AECDs is to determine whether any of these devices can be considered a defeat device.

90. In the email, Kata went on to explain how an EGR system that runs differently under test conditions than in real driving conditions — a central function of the defeat device software in all the Subject Vehicles — would constitute a defeat device:

EPA also discusses the concept of the existence of a defeat device strategy if a manufacturer's choice of basic design strategy cannot provide the same degree of emission control during both [emissions-test cycle] and [non-emissions-test cycle] operation when compared with other systems available in the industry. A simple example is an EGR system that provides adequate performance under [emissions-test cycle] conditions, but insufficient performance under non-[emissions-test cycle] conditions (e.g., higher speed, load or temperature). This lack of control under [non-emissions-test cycle] conditions will be considered a defeat device.

91. In the AECD analysis attached to his email, Kata also explained:

Both EPA and ARB define a defeat device as an AECD “that reduces the effectiveness of the emission control system under conditions that may reasonably 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; or (3) The AECD does not go beyond the requirement of engine starting.”

92. On March 21, 2007, multiple managers and engineers at Volkswagen AG (Richard Dorenkamp, James Liang, and Juergen Peter), Audi AG (Klaus Appel, Dr. Armin Burkardt, Giovanni Pamio, and Lothar Rech) and VW America EEO (Leonard Kata and Norbert Krause) had a follow-up meeting with CARB “to discuss Auxiliary Emission Control Devices (AECDs) associated with the diesel concepts presented.” A Volkswagen Meeting Report summarizing the discussions states, in relevant part:

VW [sic] position regarding “normal vehicle operation” is that the light-duty vehicle emission test procedures cover normal vehicle operation in customer’s hands. [CARB official] Duc Nguyen expects emission control systems to work during conditions outside of the emissions tests. Volkswagen agrees.

93. Despite being fully aware of the prohibitions in this country against defeat devices, Volkswagen, Audi and Porsche proceeded to roll out hundreds of thousands of diesel vehicles with 2.0 and 3.0 liter engines onto the American market from the 2009 through 2016 Model Years, all of which featured

undisclosed and illegal defeat devices. They concluded, in other words, that the risk of incurring fines and penalties was an acceptable cost of doing business.

E. Internally, Volkswagen Executives and Engineers Openly Discussed the Defeat Device Development.

94. At the same time as Defendants were assuring CARB their emissions control systems would work during real world driving, executives and engineers within their Powertrain Development departments were developing and implementing emissions-increasing defeat devices in the normal course of business.

95. In addition to line-level engineers, dozens of executives and senior managers engaged in discussions regarding defeat device development and implementation for nearly the next decade. These executives and senior managers included, for example:

a. Frank Tuch (2010-2015 head of Volkswagen AG Quality Management who reported directly to Volkswagen AG CEO and Management Board Member, Martin Winterkorn);

b. Bernd Gottweis (2007-2014 head of Product Safety within Volkswagen AG Quality Management);

c. Rudolf Krebs, Jens Hadler, Heinz-Jakob Neusser and Friedrich Eichler (heads of Volkswagen AG's Powertrain Development from 2005-2007, 2007-2011, 2011-2013 and 2013-2015, respectively)

d. Multiple Volkswagen AG division heads, including Hanno Jelden (head of Drive Electronics from Nov. 2005 – Sept. 2015), Falko Rudolph (Diesel Engine Development from Nov. 2006 -Sept. 2010), Stefanie Jauns-Seyfried (head of Functions and Software Development within Powertrain Electronics from Nov. 2005 – Sept. 2015), Richard Dorenkamp and Thorsten Duesterdiek (former (2003-2013) and current (2013-present) heads of Ultra-low Emissions Engines and Exhaust Post-Treatment within Diesel Engine Development), Hermann-Josef Engler (head of Passenger Car Engines within Diesel Engine Development), Mathias Klaproth (head of Diesel System Applications within Powertrain Electronics);

e. Numerous managers within these divisions, including Burkhard Veldten, Volker Gehrke, Dieter Mannigel (in Diesel Engine Functions within Powertrain Electronics' Functions and Software Development department) and Andreas Specht, Hartmut Stehr, Michael Greiner and James Liang (in Procedures and Exhaust Post-Treatment within the Diesel Engine Development department);

f. Top Audi engineers, including Giovanni Pamio (General Manager of V6 Diesel Engines), Henning Loerch (Director of

Exhaust Gas Aftertreatment) and Martin Gruber (Director of Audi Diesel Engine Thermodynamics Department); and

g. The Chief of Porsche Electronics Development, Carsten Schauer.

96. Among other things, these executives and senior managers detailed the use of the defeat devices to reduce raw emissions during test cycles and reduce EGR and DPF regeneration during real driving conditions, and otherwise described the expansion, modification and optimization of the cycle-beating Acoustic Function, well into 2014.

97. A February 29, 2016, statement of defense filed by Volkswagen in a pending European shareholder lawsuit offers possible insight into why, in light of its knowledge of the illegality of its conduct and the potential fines the company thought it would face, Volkswagen nevertheless opted to proceed with its fraudulent scheme:

Under the Clean Air Act, violations of the statutory emission standards may be sanctioned by fines called civil penalties. While these fines may be as much as U.S.-\$ 37,500 per vehicle and are thus in theory quite high, the statutory maximum amounts have to date played no role in practice. Nonetheless, they define the available range of penalties for the relevant U.S. authorities and are thus routinely cited in the corresponding notices – as was also the case with the EPA’s Notice of Violation of 18 September 2015.

Regardless of the statutory maximum amounts and the abstract presentation of the fine assessment criteria in the law, fines in practice do not even

approach the upper end of the range, especially in cases involving passenger cars in large numbers (instead of heavy trucks).

F. Volkswagen and Audi Continued to Deny the Existence of the Defeat Devices and Mislead Regulators Even After Initial Evidence of Their Existence Caught the Attention of U.S. Regulators.

98. While speaking about the defeat devices relatively openly in internal discussions, Defendants actively sought to conceal the defeat devices from regulators, researchers, and the public. Among other things, Defendants:

- a. directed the removal of reference to the defeat device (or the “acoustic function” as it was called internally) from ECU documentation;
- b. buried the results of 2012-2013 internal testing that reflected real world NO_x emissions exceeding U.S. limits by many multiples;
- c. obfuscated in response to questions presented by Dutch researchers in March 2012 concerning lowered EGR in real driving conditions and corresponding increases in NO_x emissions;
- d. denied independent researchers access to data that would confirm NO_x discrepancies between testing and real driving conditions in Volkswagen’s U.S. fleet; and
- e. failed to disclose the illegal, emissions-increasing defeat devices in their certifications to state and federal regulators which

falsely represented full compliance with applicable emissions and durability standards.

i. Volkswagen's Initial Reaction to the Spring 2014 Publication of the ICCT Report

99. On March 31, 2014, an Audi AG engineer alerted colleagues at Volkswagen AG and VW America EEO to the upcoming publication of a report by the West Virginia University's Center for Alternative Fuels, Engines & Emissions commissioned by the International Council on Clean Transportation (the "ICCT Report") that found that real world emissions from two of the three light duty diesel vehicles it tested contained levels of NO_x between five and thirty-five times higher than the legal emissions limits. WVU researchers conducted these tests using a portable emissions measurement system – essentially a lightweight laboratory used to test and/or assess mobile source emissions – rather than on a dynamometer.

100. Anxiety within the company about the possibility that the vehicles that failed were Volkswagens was demonstrated by a flurry of internal Volkswagen and Audi communications that followed. Within days, those fears were confirmed when ICCT researchers told VW America EEO the vehicles that failed were a 2012 Jetta with a Lean Trap (Generation 1) and a 2013 Passat with an SCR system (Generation 2).

101. Thereafter, VW America's EEO began fielding calls and requests for reports and analyses of the ICCT Report from multiple high-ranking Volkswagen executives, including Michael Horn (then-CEO and President of Volkswagen Group of America), Carsten Krebs (a Director at Volkswagen Group of America), Frank Tuch (then-head of Group Quality Management for Volkswagen AG), Bernd Gottweis (then-head of Product Safety within Volkswagen AG Group Quality Management) and Christian Klingler (then-Volkswagen AG Management Board member responsible for Sales and Marketing).

102. Documents and information provided by managing engineers at Volkswagen AG, Audi AG, Volkswagen of America and Audi of America (including several engineers who participated in the design and implementation of the defeat devices in the early-2000s) to multiple senior management officials (including Martin Winterkorn, then-CEO of Volkswagen AG and Chairman of Volkswagen AG's Board of Management, and Christian Klingler, then-member of Volkswagen AG's Board of Management responsible for Sales and Marketing) in the immediate aftermath of the ICCT study clearly demonstrate that, from Volkswagen group level management all the way down the line, it was well-understood that:

- a. the high real world NO_x emissions could be readily explained by the existence of the defeat devices described above;

- b. Volkswagen and Audi would be subject to significant penalties if they admitted to regulators the discrepancies were caused by defeat devices;
- c. Volkswagen could be required to buy back the vehicles if it could not bring the emissions down with a software update; and
- d. If Volkswagen opted to stay silent, EPA or CARB could obtain vehicles and conduct emissions testing that would reveal the existence of the defeat devices.

103. Indeed, in a May 23, 2014 letter to Martin Winterkorn, CEO and Chairman of Volkswagen AG's Board of Managers, Volkswagen AG Quality Assurance head Frank Tuch warned:

A thorough explanation for the dramatic increase in NO_x emissions cannot be given to the authorities. It can be assumed that the authorities will then investigate the VW systems to determine whether Volkswagen implemented a test detection system in the engine control unit software (so-called defeat device) and, in the event a "treadmill test" is detected, a regeneration or dosing strategy is implemented that differs from real driving conditions.

In Drivetrain Development, modified software versions are currently being developed which can reduce the RDE, but this will not bring about compliance with the limits, either. We will inform you about the further development and discussion with the authorities.

104. With the risks of detection in mind, Volkswagen embarked on a strategy to deescalate and deflect scrutiny. It publicly denied that the Subject Vehicles failed emissions requirements. It acknowledged the existence of the

problem without explaining its known cause to authorities or involving Volkswagen AG Group Product Safety, to maintain the illusion that the problem was insignificant. And it proposed software updates to “optimize” the emissions on the Generation 1 and 2 vehicles that were the focus of the ICCT Study. Yet as the executives at Volkswagen AG, Audi AG, and VW America, and Audi of America who worked on this damage-control effort well knew, the proposed software modifications would:

- a. only bring the Generation 1s’ emissions down to ten times the legal limits, while at the same time increasing fuel consumption;
- b. only bring the Generation 2s’ emissions down to five times the legal limits;
- c. only bring the Generation 3s’ (*i.e.*, all the model year 2015 Subject Vehicles with 2.0 liter engines, which were about to roll off the production line) emissions down to up to double the legal limits; and
- d. nearly double urea dosing requirements of the SCR-equipped Subject Vehicles thereby necessitating additional urea tank refills for a significant percentage of drivers.

105. And so began Volkswagen’s seventeen month-plus campaign, from May 2014 until September 3, 2015 (and beyond for the 3.0 liter Subject Vehicles),

to mislead and confuse regulators and the public about the true cause of the high real-driving NO_x emissions identified in the ICCT Report.

**ii. Volkswagen's Desperate Efforts to Deflect
Scrutiny of the Model Year 15 Generation 3s
About to Hit the U.S. Market**

106. One of the most pressing dilemmas Volkswagen faced in the immediate aftermath of the ICCT Report related to the SCR-equipped model year 2015 Generation 3s that were set to roll off the production line a few months later for delivery in the United States with the illegal defeat devices installed.

107. In or around March 2014, just before the ICCT Report was released, Volkswagen applied to CARB and EPA to certify the Generation 3s to the LEV III standard – a more stringent standard than the LEV II standard, to which they had certified the earlier model year 2009 to model year 2014 2.0s.

108. With the publication of the ICCT Report and the resulting intense scrutiny from regulators, Volkswagen was under immediate pressure to bring the Generation 3s into actual compliance with LEV III standards as quietly and quickly as possible.

109. With respect to the urea dosing, in particular, Volkswagen estimated that even to bring emissions down to within two times the legal limits, urea dosing would need to nearly double (from 0.8l/1,000 miles up to 1.5l/1,000 miles). And

even then, according to Volkswagen's own estimates, 20% of Generation 3 owners would have to refill their urea tanks well before 10,000 miles.

110. Unwilling to come clean with the regulators, Volkswagen decided to use an impending change to EPA rules (effective September 8, 2014) permitting automakers to decouple urea tank refills from service intervals as a pretext to update the software in the Generation 3s waiting in U.S. ports, turning down the defeat device and increasing the urea dosing during real world driving, before they got into regulators' or customers' hands.

111. Thus, in early June 2014, Volkswagen submitted revisions to its applications for certification to CARB and EPA changing the anticipated urea refill interval from 10,000 miles to "approximately 10,000 miles."

112. Sensitive that the potentially increased number of urea refills and impact on drivability (vehicles with empty urea tanks cannot be started) brought "significant rejection reason to potential buyers," Volkswagen also began discussing how to announce and message this change to dealers and consumers.

113. Given the time constraints and the significant threat to future sales, Volkswagen treated this matter with urgency and involved a multitude of executives and engineers at Volkswagen AG, Audi AG, VW America EEO, and Audi of America.

114. Volkswagen's communications to dealers and the public regarding the changes in urea consumption for the Generation 3s falsely and/or misleadingly:

- a. suggested the vehicles would meet EPA and CARB emissions standards;

- b. omitted any mention of the fact that NO_x emissions in real driving conditions would still be as much as double legal limits;

- c. claimed that only customers with aggressive driving styles would see the intervals between refills reduced when, in fact, internal estimates reflected that 20% of drivers would have to refill their urea tanks before 10,000 miles (according to Audi AG and Volkswagen AG estimates, between 6,000 and 8,000 miles); and

- d. suggested that the older SCR-equipped Generation 2s (namely, model year 2012-2014 Passats) would not require increased urea dosing to comply with LEV II emissions standards.

115. Volkswagen further mischaracterized the decision to increase urea dosing as a proactive decision by the company to meet more stringent Tier 2/LEV III emissions standards when, in reality, it was a ruse to conceal from authorities Volkswagen's illegal urea dosing strategy.

**iii. Volkswagen's Attempt to Placate Regulators
by Offering Deceptive, Sham Software Recalls
on the Generation 1s and Generation 2s**

116. At the same time it was covertly managing the Generation 3 defeat device issue, Volkswagen was also:

- a. planning recalls to perform software updates to turn down the defeat devices in the Generation 1s and Generation 2s, *i.e.*, to increase Exhaust Gas Recirculation and increase urea dosing during normal driving conditions; and
- b. characterizing those recalls to regulators, dealers and owners/lessees as a software “upgrade” or “optimization” in order to deflect suspicion and further inquiry.

117. Notwithstanding Volkswagen's knowledge that its proposed software actions would not bring the vehicles into compliance with applicable emissions standards and, further, that they would increase fuel and urea consumption, Volkswagen engaged in a pattern of obfuscation and deceit in its communications with regulators and consumers. Volkswagen cited bogus technical explanations for the high emissions and omitted any mention of the true cause of the high NO_x emissions, the levels of “optimization” the software actions would actually achieve or the impact of the software updates on fuel and urea consumption.

118. In its November 26, 2014, and December 12, 2014, recall-related submissions to CARB and EPA, Volkswagen touted the Generation 2 software recall as a “pro-active” and an “upgrade.” In the description of the corrective action to CARB and EPA in those submissions, Volkswagen did not state why the software action was needed. Rather, it stated:

- Improvements have been made with regard to the [particulate matter] PM filter loading / regeneration model. The updated software incorporates the latest engineering experiences to enhance the accuracy of the PM filter model. The implemented changes do not have a negative impact on the KI-factor determination or influence the on road performance of the vehicle.
- Improvements have been made ensuring a higher Ammonia filling level of the SCR catalyst. This ensures that the SCR catalyst is more robust against NO_x-peaks caused by dynamic and transient speed / load changes. The new software incorporates the latest engineering experiences to enhance the efficiency of the SCR system.

119. The notices to dealers and consumers issued thereafter, in or around January 2015 were similarly misleading and deceptive, stating that: “the vehicle’s engine management software has been improved to assure the vehicle’s tailpipe emissions are optimized and operating efficiently. Under certain operating conditions, the earlier strategy may have increased the chance of the vehicle’s [malfunction indicator lamp] light illuminating.” The customer letter further disingenuously stated that the recall was being undertaken “[a]s part of

Volkswagen's ongoing commitment to our environment, and in cooperation with the United States Environmental Protection Agency.”

120. These notices were indisputably deceptive. No dealer or customer who received one would have understood why the recall was being conducted or the fact that the Subject Vehicles’ urea consumption would likely drastically increase, in many cases requiring consumers for the first time to refill their urea tanks between 10,000 mile service intervals.

121. Volkswagen’s March 2015 recall-related submissions concerning the software update for the Generation 1s were similarly misleading and deceptive, again describing the action as a “pro-active” and an “upgrade” of ECM Software levels. Its description of the “specific modification” to EPA stated:

These changes will assist in reducing [malfunction indicator lamp] illumination for DTC P0401 & P2463, thus reducing the frequency of unnecessary replacement of after treatment system components. In addition, the vehicle’s engine management software strategy has been modified to optimize the PM filter loading and regeneration model under extreme driving conditions.

Volkswagen further falsely reported that the update would “pose no impact on fuel economy.”

122. As with the earlier Generation 2 recall-related notices, Volkswagen told dealers and customers: “the vehicle’s engine management software has been improved to assure the vehicle’s tailpipe emissions are optimized and operating efficiently. Under certain operating conditions, the earlier strategy may have

increased the chance of the vehicle's [malfunction indicator lamp] light illuminating." Volkswagen omitted any mention of the reason for the software update, the fact that post-update real-driving NO_x emissions would still be up to ten times legal limits or the anticipated decrease in fuel economy.

iv. Audi's Efforts to Deflect Regulators' Suspicion about the 3.0s

123. Around the same time Volkswagen was meeting with regulators to describe the proposed 2.0 recalls and offering a host of improbable reasons for the NO_x discrepancies the recalls were meant to fix, regulators' suspicions about the 3.0s started to build. Those suspicions were well-founded. Internal tests Audi conducted (starting in Fall 2014) using the portable emissions measurement system on multiple 3.0s reflected real driving NO_x emissions many times higher than permissible limits.

124. In February 2015, in response to increasing pressure from regulators for transparency on the 3.0s (and, in particular, questions about whether the upcoming model year 2016s for which Audi was then seeking certification were beset by the same issues as the 2.0s), EEO conveyed results of Audi's late 2014 – early 2015 testing of an Audi A8 V6 TDI MY 16 using a portable emissions management system to CARB: "emissions at a level of three times the NO_x ULEV II [full useful life] standard."

125. In a one-page written submission to CARB, Audi attributed the discrepancy between NO_x emissions in the traditional testing environment as opposed to using the portable emissions measurement system to “increased driving dynamics in combination with a lot more unsteady driving characteristics” and, to the fact that “the driving kinematics in the [Los Angeles] area are significantly different from standard [test cycle] characteristics” such “that a sustainable high SCR effectiveness in comparison to the regulatory [test cycle] can be reached and therefore leads to an increase in NO_x emissions,” Audi further claimed:

the temporary reduction of the SCR effectiveness is caused by the underfloor position of the SCR system and therefore represents a physical boundary of the technical capability of the system and no intervention in the control strategy. Therefore Volkswagen concludes that the current SCR-application fulfils the requirement of the AECD regulation. As a consequence Audi requests an unconditional [Executive Order].

126. Although it had conducted additional portable emissions measurement system tests of earlier and current 3.0 model years, and obtained considerably worse results (NO_x emissions during real drive of ten times legal levels), Audi AG did not disclose those results to regulators or consumers. Instead, Audi disclosed only that it planned to alter the applicable software to improve real-world emissions for future 3.0 models. At the same time, Defendants continued to deceptively market and sell the 3.0s to consumers.

v. Volkswagen's Continuing Efforts to Mislead Regulators

127. Over the course of Spring 2015, CARB made multiple requests for information concerning: (a) whether the software updates Volkswagen offered for the Generation 1s and Generation 2s had brought those vehicles into compliance with relevant standards; and (b) whether the model year 2016 Generation 3s and 3.0s for which neither EPA nor CARB had yet issued certification were beset by the same issues.

128. CARB officials followed up multiple times requesting from Volkswagen more specific information regarding how the software controlled urea dosing on the model year 2016 2.0s and 3.0s for which Volkswagen was then seeking certification. Engineers and officials at Volkswagen AG, Audi AG, EEO and Volkswagen of America were in frequent contact with CARB, but would not provide CARB clear answers. They strung CARB along for months.

129. Upon learning that CARB planned to conduct confirmatory testing of an updated Generation 2 using "Special Cycles," *i.e.*, consecutive test cycles on the dynamometer, internal emails between EEO and engineers at Volkswagen AG began to reflect desperation and panic. In a May 18, 2015 email to several managers and engineers within Volkswagen AG's Powertrain Development Department and to EEO head Stuart Johnson, Volkswagen AG engineer Juergen Peter conveyed serious concern regarding what CARB's Special Cycles would

expose, asking his colleagues: “Do we need to discuss next steps?” With respect to CARB’s questions relating to the soot loading of the Diesel Particulate Filter, Peter begged: “Come up with the story please!”

130. The same concern about the growing frequency and intensity of CARB’s requests for information was reflected in a May 21, 2015 email from Mike Hennard, Senior Manager of Emissions Compliance at EEO, to multiple Volkswagen AG managers and engineers. It stated: “Please be aware that this type of action from California ARB staff / management is not a normal process and that we are concerned that there may be possible future problems/ risks involved. It should also be noted that this turbocharged direct injection software issue is being reviewed and monitored by upper management at ARB.” After receiving Hennard’s email, one of the senior managers wrote an email to Hennard’s manager (VW America EEO-head Stuart Johnson) admonishing him for allowing his direct report to send such an open email to those recipients.

131. In June 2015, CARB conducted confirmatory testing on a 2012 SCR-equipped Passat (Generation 2). Based on that testing, CARB notified Volkswagen that it had concluded “VW’s ‘fix’ Calibration” did *not*: (a) “directly address the lack of [urea] dosing filling strategy on some drive cycles,” (b) “directly address high NO_x emissions on drive cycles extending beyond 1,400 seconds. VW’s [urea] filling strategy is still only invoked once per drive cycle;

therefore, NO_x emissions will continue to increase as the drive cycle progresses[;],” and (c) “address why or when the filling strategy is invoked. Some drive cycle [sic] may never activate the [urea] filling strategy.”

132. Thus, CARB indicated it could not certify the model year 2016 Generation 3, 2.0s until it received confirmation they did not have the same parameters for urea dosing as the updated Generation 2s, which had already failed CARB’s confirmatory testing.

G. Volkswagen Only Admitted Its Misconduct on the 2.0s When It Thought Doing So Would Prompt Regulators to Certify It to Sell Model Year 2016 Generation 3s.

133. Volkswagen’s repeated attempts to assure CARB that the “Gen 3 2016 MY did not share the [Gen 2] strategy or concern” were unavailing.

134. By mid-July 2015, Volkswagen had not obtained certification to sell the model year 2016 Generation 3, the vehicles were piling up in the ports, and every interaction with regulators raised more questions and concerns than it answered.

135. On or about July 20, 2015, upon learning that CARB planned to test a model year 2015 Generation 3 to resolve questions about whether these vehicles (and the model year 2016 Generation 3s) needed a software update, VW America EEO head Stuart Johnson internally floated the possibility of “discussing a

‘working mistake’ with ARB” and further suggested “how we handle this could be a positive step if we tie it to the refill interval and dosing strategy.”

136. In an email dated July 21, 2015, VW America President and CEO, Michael Horn, conveyed the urgency of the situation to multiple board members and executives in Germany (including Christian Klingler, Volkswagen AG Management Board member responsible for Sales and Marketing and Heinz-Jakob Neusser, the Volkswagen Passenger Car Board member responsible for Technical Development). Horn made clear that certification of the model year 2016 Generation 3s was at risk if Volkswagen failed to provide CARB all the outstanding information it was awaiting.

137. Thereafter, on or about August 5, 2015, Volkswagen AG Engine Development head (and former VW America EEO head) Oliver Schmidt and VW America EEO head Stuart Johnson met with CARB management and admitted that, even after the software recalls, the Generation 1s and Generation 2s did not meet legal requirements. With respect to the SCR-equipped Generation 2s, they attributed the low urea dosing to efforts to conserve urea due to the 10,000-mile refill interval. Yet the Generation 2 recall Volkswagen had just conducted should have addressed that issue, given the September 2014 change to EPA rules allowing refills to occur between 10,000 mile service intervals.

138. A week later, on August 12, 2015, while still withholding the model year 2016 Generation 3 certifications because of concerns that the model year 2015 and 2016 Generations 3s suffered from the same dosing issues as the Generation 2s, CARB technical staff again requested “the exact parameters that control [Generation 3 urea] dosing and show the before & after calibration difference that corrected the lack of dosing issues found during our [Generation 2] testing.”

139. After extensive internal discussion by and among VW America EEO head Stuart Johnson and multiple high level executives at Volkswagen AG (including Oliver Schmidt, head of Engine Development and Bernd Gottweis, then-head of Quality Management/ Product Safety) in which Johnson expressed doubts concerning whether it would even be possible to give CARB what it requested “given the complication of today’s code,” Volkswagen again decided to obfuscate. Rather than provide CARB the information it sought regarding the model year 2016 Generation 3 urea dosing parameters, Volkswagen AG dispatched Johnson to reiterate to CARB the “same message Oliver [Schmidt] brought last week when we both met with [CARB officials], which is a partial admission that concern of the 10K refill interval is another parameter that influences the dosing and that is why he is not always seeing the dosing at the enabling temperature.”

140. Johnson's effort to allay CARB's concerns was unsuccessful. As Johnson reported in an August 12, 2015, email report to multiple high level executives, managers and engineers at Volkswagen AG (Oliver Schmidt, Friedrich Eichler, Bernd Gottweis, Daniel Schukraft, Juergen Peter, Detlef Stendel, Richard Preuss, and Thorsten Duesterdiek), notwithstanding his assurances, CARB "still asked for information. This is not a new request. [CARB] has asked for the parameters in the calibration of Gen 2 that are limiting the dosing to ensure that it is not in Gen 3."

141. On August 18, 2015, Volkswagen AG Drivetrain Development head Friedrich Eichler sought authority from then-Volkswagen Passenger Car Board member and head of Volkswagen AG Engine Development Heinz-Jakob Neusser to send multiple Volkswagen AG diesel department heads (together with current and former VW America EEO heads Stuart Johnson and Oliver Schmidt) to meet with CARB on August 19, 2015. The express goal of the meeting was to secure the release of the model year 2016 Generation 3 vehicles and to convince CARB that Volkswagen would be able to implement measures to reduce the Generation 2s real driving NO_x emissions values to an acceptable level within an agreed timeframe. To do that, they agreed to (again): (1) acknowledge problems in the Generation 1s and Generation 2s; (2) promise another software update to the Generation 2s in mid-2016; and (3) continue to assure CARB that the lessons

learned from the Generation 2 issues had informed and improved the emissions controls in the Generation 3s.

142. Consistent with the agreed-upon approach, the technical presentation Volkswagen made to CARB on August 19, 2015 (entitled “Technical Information to enable ARB to issue the MY16 – Gen 3 certificate”) generally described the modifications to the Generation 3 dosing strategy as compared to the Generation 2s, and generally described the inputs, but did not provide the actual values that enabled or disabled urea dosing or admit any time- or distance-related inputs. Nor did the presentation acknowledge that the Generation 3s would not meet applicable emissions standards in real world driving.

143. This presentation did not satisfy CARB, which demanded more information and continued to withhold model year 2016 Generation 3 certification.

144. By late August 2015, Volkswagen had more reason to be concerned than simply the growing number of model year 2016 Subject Vehicles piling up at the ports. CARB obtained a model year 16 Generation 3 for testing on August 26, 2015, making the discovery of the defeat devices nearly unavoidable. Volkswagen management knew they needed to provide CARB the information it sought and expressly recognized that potential financial liability necessitated creation of a reserve. Yet they were unsure whether and to what extent they

should disclose other functions controlled by the defeat devices, *e.g.*, Lean Trap regeneration and EGR.

145. On September 3, 2015, at a meeting attended by multiple CARB officials, Volkswagen AG executives and managers (Friedrich Eichler, Richard Preuss, Oliver Schmidt, Thorsten Duesterdiek, Burkhard Veldten) and VW America EEO-head Stuart Johnson, Volkswagen finally admitted the existence of an illegal defeat device in the Generation 2s and disclosed the existence of “test recognition software and engine map/dosing changes between road and chassis dyno.”

146. For the first time, Volkswagen admitted the Generation 2 Engine Control Units had two calibrations: one for real world driving (Calibration 1) and one for testing (Calibration 2). In Calibration 1, Volkswagen disclosed that the urea dosing, the EGR and the Rail Pressure were lower. In Calibration 2, Volkswagen disclosed that the urea dosing, the EGR and the Rail Pressure were higher. In addition, Volkswagen provided greater detail regarding the enable/disable values for these calibrations.

147. Far from convincing the regulators that certification of the model year 2016 Generation 3s should move forward, Volkswagen’s admission raised additional questions and concerns to which CARB sought a response, including

concerns regarding compliance with applicable durability standards (given the anticipated increase in the number of DPF regenerations post-software update).

148. On September 18, 2015, EPA issued to Volkswagen a Notice of Violation (“September 2015 NOV”) reflecting the agency’s determination that “VW manufactured and installed defeat devices in certain model year 2009 through 2015 diesel light-duty vehicles equipped with 2.0 liter engines. These defeat devices bypass, defeat, or render inoperative elements of the vehicles’ emissions control system that exists to comply with [Clean Air Act] emission standards Additionally, the EPA has determined that, due to the existence of the defeat devices in these vehicles, these vehicles do not conform in all material respects to the vehicle specifications described in the applications for the certificates of conformity that purportedly cover them.”

149. The same day, CARB sent an “In-Use compliance” letter to Volkswagen describing its investigation of the “reasons behind these high NO_x emissions observed on their 2.0 liter diesel vehicles over real world driving conditions[]” and its related discussions with Volkswagen. According to CARB, those discussions “culminated in VW’s [September 3, 2015] admission to CARB and EPA staff that it has, since model year 2009, employed a defeat device to circumvent CARB and the EPA emission test procedures.”

H. Even in the Face of Formal Action Concerning the 2.0s, Audi and Volkswagen Continued to Deny the Existence of Defeat Devices in the 3.0s.

150. In the face of regulatory action concerning the 2.0s and the intense public scrutiny they were facing, Defendants continued to publicly deny the existence of illegal defeat devices in the 3.0s.

151. At the same time as it was publicly denying its 3.0s were affected, managers and engineers at Audi AG and EEO were discussing how to disclose to CARB the existence of time- and temperature-based urea dosing and EGR software strategies in the 3.0s, without expressly acknowledging the presence in these vehicles of illegal defeat devices Volkswagen had admitted existed in the Generation 2s.

152. In or around October 2015, CARB conducted its own Special Cycle testing on a model year 2016 Audi A6 and a model year 2014 Volkswagen Touareg.

153. Thereafter, in a second round of notices issued on November 2, 2015, EPA and CARB notified Volkswagen they had conducted defeat device screening and certification testing on a model year 2016 Audi A6 and a model year 2014 Volkswagen Touareg and “observed the same type of emissions behaviors as those in which VW has admitted defeat devices exist. These activities corroborate testing conducted by U.S. EPA and Environment Canada on a 2014

VW Touareg (Test Group EADXT03.02UG) and a 2015 Porsche Cayenne (Test Group FPRXT03.0CDD), respectively. This testing has also yielded evidence of a defeat device.”

154. On November 20, 2015, CARB issued a press release reporting that in a November 19, 2015 meeting with EPA and CARB, “VW and AUDI told EPA and CARB that the issues raised in the In-Use Compliance letter extend to all 3.0 liter diesel engines from model years 2009 through 2016.” Thereafter, in an In-Use Compliance Letter dated November 25, 2015, CARB confirmed its determination “that all 3.0 liter model years 2009-2016 test groups of the [Audi AG, Porsche AG, Porsche Cars North America, Volkswagen AG, and Volkswagen Group of America, Inc.] are in noncompliance with CARB standards[.]”

I. The German Defendants and VW America Knew but Concealed that the Subject Vehicles Emitted Dangerous and Harmful NO_x Emissions in Amounts Far Higher Than Permitted Under the Applicable Emissions Standards.

155. At all relevant times, the German Defendants – Volkswagen AG, Audi AG and Porsche – and Volkswagen’s U.S. subsidiary, VW America, knew that the defeat devices installed in the 2.0s and 3.0s they manufactured and sold in Maryland caused the Subject Vehicles to emit many times the allowed NO_x during normal operation in violation of state laws and regulations promulgated to protect human health and the environment from mobile sources of air pollution.

156. This excess NO_x emitted by the Subject Vehicles added to the formation of ozone and particulate matter pollution, which, as explained above, harms the public health and damages the environment.

157. At all material times, Volkswagen was aware of the requirements of the state environmental statutes and regulations. For example, COMAR 26.11.34.06 requires car manufacturers to comply with the Fleet Average Non-methane Organic Gas (“NMOG”) or NMOG plus NO_x Exhaust Emission Requirement in Maryland. Since at least model year 2011, Volkswagen has been filing with the Department the NMOG Fleet Average Reports for Volkswagen vehicles delivered for sale in Maryland, as required by COMAR 26.11.34.13B. As a result of the defeat devices in the Subject Vehicles, those fleet averages (and any resulting NMOG credits/debits reported) were false.

158. Likewise, in order to obtain certification to sell the Subject Vehicles in Maryland, Volkswagen submitted CARB applications for Emission Certification falsely certifying the Subject Vehicles’ compliance with applicable emissions and durability standards and CA LEV regulations. These applications contained the following false statements:

Statement of Compliance:

The Volkswagen Group states that any element of design, system, or emission control device installed on or incorporated in the Volkswagen Group’s new motor vehicles or new motor vehicle engines for the purpose of complying with standards prescribed under section 202 of the

Clean Air Act, will not, to the best of the Volkswagen Group's information and belief, cause the emission into the ambient air of pollutants in the operation of its motor vehicles or motor vehicle engines which cause or contribute to an unreasonable risk to public health or welfare except as specifically permitted by the standards prescribed under section 202 of the Clean Air Act. The Volkswagen Group further states that any element of design, system, or emission control device installed or incorporated in the Volkswagen Group's new motor vehicles or new motor vehicle engines, for the purpose of complying with standards prescribed under section 202 of the Clean Air Act, will not, to the best of the Volkswagen Group's information and belief, cause or contribute to an unreasonable risk to public safety.

Durability Statement:

Based on the Volkswagen Group's good engineering judgment, all the vehicles described in this Application for Certification comply with all applicable intermediate and full useful life standards.

159. Moreover, Volkswagen failed to disclose or describe the defeat devices on the list of AECDs required in the Applications. To the extent it disclosed the existence of them as AECDs, it falsely represented they were "active" in all conditions (*i.e.*, in test and real driving conditions).

160. Volkswagen's certifications to state and federal environmental regulators concerning the Subject Vehicles' purported compliance with applicable law were false and misleading. As a result, Volkswagen sold nearly 13,000 non-compliant Subject Vehicles in Maryland.

J. Prior Scandals and Penalties Have Failed to Deter Volkswagen From Engaging in Illegal Conduct to Advance its Own Financial Interests.

161. As described above, in terms of compliance with state and federal emissions regulations and honest marketing in the United States, Volkswagen's pattern and practice has been one of rampant and repeated illegality. Time and again, when compliance with the law proved too expensive or inconvenient, the company (including its luxury Audi line) decided to cheat; when threatened with disclosure, it dissembled and deceived.

162. Nor is the conduct described in this Complaint Volkswagen's first brush with U.S. law. On the contrary, Volkswagen was required to implement controls in connection with past misconduct and to pay penalties to resolve prior emissions-related matters in this country. Those controls and penalties were, however, insufficient to prevent the conduct complained of in this Complaint or to otherwise affect the corporate culture that spawned it.

163. In 1974, Volkswagen entered into a settlement with the EPA to resolve allegations it had had gamed pollution control systems in four model year 1973 vehicle models by changing carburetor settings and shutting off emissions control systems at low temperatures in violation of the 1970 Clean Air Act and EPA regulations.

164. While Volkswagen denied wrongdoing, it paid a \$120,000 fine and agreed to make several internal management control changes to ensure future compliance with the federal Clean Air Act and EPA regulations.

165. More recently, in 2005, Volkswagen of America entered into a Consent Decree with EPA and the Department of Justice to resolve allegations that Volkswagen violated Section 208 of the Clean Air Act, 42 U.S.C. § 7542, and 40 C.F.R. § 85.1903, by failing to notify EPA of and correct defective oxygen sensors on certain of its vehicles until a month after EPA independently discovered the problem through a random surveillance test of an affected, Volkswagen vehicle.

166. Under the June 2005 Consent Decree, Volkswagen was required to: conduct a \$26 million recall; implement an enhanced defect tracking, investigating, and reporting system regarding possible defects in emissions-related components to ensure future compliance; send a status report to EPA once a year that described all actions taken by the company to comply with the Consent Decree; and pay \$1.1 million to the United States.

K. Attorney-Sanctioned Document Destruction in Germany and the Supervisory Board's Recent Award of €62 Million of Executive Compensation in the Wake of the Current Scandal Further Reflect the Broken Corporate Culture at Volkswagen

167. In or around late August 2015, as regulators in the United States were closing in and the Defendants' diesel scandal was about to publicly break, a

senior attorney in Volkswagen AG's legal department in Wolfsburg advised multiple fellow employees that a litigation hold was about to be issued and that, once it was issued, it might become impossible to destroy or delete documents.

168. At least eight employees – all in engineering departments involved in the creation of the defeat devices – got the unmistakable message; they promptly deleted or removed incriminating data about devices from the company's records. Some but not all of the data has been recovered.

169. Recent actions by Volkswagen's Supervisory and Management Boards demonstrate that the company's culture that incentivizes cheating and denies accountability comes from the very top and, even now, remains unchecked.

170. On April 22, 2016, Volkswagen AG issued its Annual Report for 2015. In it, the company laid out the compensation it would pay to the members of its Management Board for 2015, the same year those members presided over the present emissions scandal – the costliest and most destructive debacle in the company's postwar history.

171. Despite the failure of the Management Board to avert this debacle or to manage it in a way consistent with its obligations to regulators and consumers, Defendants have yet to be held accountable. The company's Annual Report reported that Volkswagen would pay to each of the nine sitting Management Board members who had served in 2015 at least €4 million in compensation. In

total, the Report states that current and former Management Board members would receive compensation awards totaling €63 million.

172. In addressing the diesel scandal, the Annual Report stated that the Management Board members proposed an offer, which the company accepted, that roughly 18% of each Board member's total €4 million compensation be withheld until April 2019, at which time the withheld portion would be paid if the company's stock price has then risen by at least 25%.

173. Tellingly, this "hold-back" proposal was set with an extremely low bar: the baseline price against which share increases would be measured is not the company's share price before news of the scandal broke, but rather is set at €112, near the post-scandal lows for Volkswagen stock and 30% lower than where the shares were trading on the eve of the September 18, 2015 announcements that sent the company's shares tumbling. Indeed, under the Management Board members' proposal, as accepted by the company, the Board members will recover their compensation in full if Volkswagen's share price creeps up to as low as €140 by April 2019 – a figure still 13% lower than the stock's price the day before Volkswagen's emissions cheating was announced.

174. Further, under their proposed compensation scheme, members of the Management Board would be able to double their withheld bonuses if the stock rises in that timeframe to €168. Put differently, under the proposal made by the

Management Board and accepted by the company, the Board members will achieve that double-bonus incentive if Volkswagen's share price reaches a level in April 2019 that would represent a mere 3.7% increase over the level of September 2015, three-and-a-half years earlier.

175. This compensation plan for the nine sitting Management Board members therefore is designed to likely reward, and certainly in no way penalize, them for presiding over chronically illegal behavior and failing to make timely disclosures when the existence of defeat devices came to senior management's attention, as it did no later than May 2014.

176. As to the members of the Management Board who left the company in the wake of the emissions scandal and are directly implicated in it – in particular, Martin Winterkorn, the former CEO of Volkswagen AG, and his protégé, Christian Klingler, who headed the company's marketing efforts – Volkswagen's rewarding of their improper behavior is even more remarkable.

177. As set forth in Volkswagen's April 2016 Annual Report, Mr. Winterkorn received €7.3 million in compensation last year, with none of it held back or made contingent on future stock price increases. In addition, the company reported that it had extended to Mr. Winterkorn a severance payment of €9.2 million.

178. As for Mr. Klingler – who as described above contacted Volkswagen of America’s EEO directly after the release of the ICCT study in the Spring of 2014 and was briefed at that time on the existence of Volkswagen’s defeat devices – the Annual Report states that he will receive €4.8 million for his work on the Management Board from January through September of 2015 (when Volkswagen’s cover-up was in full swing), again with no portion withheld or made contingent on future share price increases. On top of this, Mr. Klingler is slated to receive a full two-year severance package of €14.4 million, with no portion of it withheld either for future contingencies or for past misconduct.

179. Last month, Volkswagen’s Supervisory Board – consisting of representatives of the Porsche family that owns over 50% of the company’s stock, as well as representatives from the state of Lower Saxony, Volkswagen’s unions, a Swedish bank, and the Qatari sovereign wealth fund – stated that it supported in full the above-described payments to the Management Board, as well as the actions generally of the Management Board over the past year. At the same time, the Supervisory Board recommended that the company’s shareholders likewise support the Management Board’s compensation for and actions taken during the company’s catastrophic 2015 at the General Meeting of Volkswagen’s shareholders on June 22, 2016.

180. As supposed justification for this recommendation, the Supervisory Board purported to rely on the absence of incriminatory findings by Jones Day, the law firm it has hired to investigate the emissions scandal, which has not yet completed its investigation:

This recommendation is based on information currently available from the not yet concluded investigation into the diesel matter by U.S. law firm Jones Day Although the investigation by Jones Day is still ongoing, according to information currently available, no serious and manifest breaches of duty on the part of any serving or former members of the Board of Management have been established that would stand in the way of granting ratification at this time.

181. In issuing this statement, the Supervisory Board made clear that Jones Day's work, to date, is far from finished and is being vigorously pursued. But in its rush to shower senior management with generous compensation, the Supervisory Board decided to rely on what it says, based on (undisclosed) "currently available" information, is the fact that former and current Management Board members have not yet been shown to have committed "serious and manifest breaches of duty." This decision was despite the evidence, recounted above, that at least by the Spring of 2014 both Mr. Winterkorn and Mr. Klingler had ample notice of the existence of unlawful illegal devices and did nothing to prevent both Audi and Volkswagen from lying to regulators, and to the public, over and over again for another 17 months.

L. Volkswagen's Announcement of a Partial Settlement with the United States, California and other States, and the Private Plaintiffs' Group

182. On June 28, 2016, Volkswagen announced a partial settlement of the claims asserted against it by litigants in a multidistrict litigation pending in the United States District Court for the Northern District of California. The terms of the partial settlement, which is subject to court approval, require Volkswagen to, *inter alia*, (i) either buyback or fix the 2.0L Subject Vehicles and provide owners and lessees with additional compensation, (ii) establish an environmental mitigation fund in the amount of \$2.7 billion to fund projects in all states to reduce NOx emissions, and (iii) invest \$2 billion (\$800 million in California, \$1.2 billion in other states) over 10 years to improve infrastructure, access, and education to support zero emission vehicles. In separate partial settlements announced the same day, Volkswagen agreed to pay civil penalties to over 40 states, including Maryland, of approximately \$1,100 per car (or over \$500 million in total) solely for Defendants' claimed violation of the consumer fraud laws of these states.

183. The partial settlements do not address or resolve any claims for civil penalties for Volkswagen's numerous environmental violations. And although it does contemplate resolution of injunctive relief claims to mitigate the environmental damage caused by its conduct, even those claims will not be fully

resolved until and unless the proposed mitigation trust agreement is finalized and executed by a designated state agency.

184. In the partial settlements announced on June 28, 2016, Volkswagen admits (i) installing software in 2.0L Subject Vehicles that “result[ed] in emissions that exceed EPA-compliant and CARB-compliant levels when the vehicles are driven on the road” and (ii) failing to disclose the existence of these defeat devices in Volkswagen’s applications to regulators, so that “the design specifications of the 2.0 Subject Vehicles, as manufactured, differ materially from the design specifications described” in those applications.

IV. REGULATORY BACKGROUND

A. California Emissions Standards and the Federal Clean Air Act

185. Subchapter II of the federal Clean Air Act, 42 U.S.C. §§ 7521 through 7590 (“the Act”), requires the U.S. EPA to establish emission standards for any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in the EPA Administrator’s judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7521(a)(1).

186. In general, under the Act, states are prohibited from adopting or enforcing emissions standards for new motor vehicles. Significantly, however, § 209 of the Act provides an exception to that prohibition to “any State which has adopted

standards for the control of emission from new motor vehicles or new motor vehicle engines prior to March 30, 1966,” *i.e.*, California. Upon a showing that a state’s (California’s) proposed new motor vehicle or new motor vehicle engine emissions standards will be as protective of public health and welfare as applicable federal standards, EPA will grant a waiver to the state (California) allowing the state to adopt those proposed emissions standards in place of the federal standards.

187. Once California adopts a new motor vehicle or new motor vehicle engine emissions standard, other states are able, under § 177 of the Act, to adopt and enforce for “any model year a standard relating to control of emissions from new motor vehicles or new motor vehicle engines,” as long as such standard is (1) identical to the California standard, and (2) adopted at least two years before commencement of the model year to be regulated. 42 U.S.C. § 7507.

188. Since the enactment of the federal Clean Air Act Amendments of 1977, California has received numerous waivers from EPA for increasingly stringent new motor vehicle or new motor vehicle engine emissions standards and currently has a very extensive regulatory scheme governing new motor vehicle emissions standards, including a low emission vehicle program.

B. Maryland Environmental Law Requires Cars to Meet the California Emissions Standards and Mandate Substantial Penalties for Violations.

189. In 2007, Maryland passed the Maryland Clean Cars Act of 2007, Chapters 111 and 112 of the Acts of 2007, which was codified in the Environment Article of the Annotated Code of Maryland as §§ 2-1100 through 1108. Together with the air regulations promulgated thereunder at COMAR 26.11.34, Maryland has a comprehensive regulatory scheme designed to prevent air pollution from motor vehicles. Under the Clean Cars Act, the Department was required to, and did, establish a Low Emissions Vehicle Program applicable to vehicles in model years beginning with model year 2011, as authorized by § 177 of the federal Clean Air Act. Md. Code Ann., Envir. § 2-1102(a).

190. There being only one low emissions vehicle program authorized by § 177 of the federal Clean Air Act, the Department adopted and incorporated by reference the State of California's Low Emission Vehicle Program Regulations ("CA LEV Regulations") found at Title 13 of the California Code of Regulations ("CCR") § 1900, *et seq.* Accordingly, vehicles transferred into and offered for sale in Maryland must meet California's emissions standards and violations of the CA LEV Regulations are violations of Maryland's Low Emissions Vehicle Program regulations. Md. Code Ann., Envir. §§ 2-1101 – 1108; *see also* COMAR 26.11.34.

191. Under the Clean Cars Act, § 2-1104 prohibits a person from transferring or attempting to transfer “a motor vehicle or motor vehicle engine that is subject to the provisions of this subtitle if the vehicle or engine does not comply with the [California low emissions vehicle] program.” Md. Code Ann., Envir. § 2-1104(b).

192. Additionally, COMAR 26.11.34.05 provides that “No person shall transfer in Maryland a new motor vehicle subject to this chapter unless that new motor vehicle has been certified by CARB to comply with all applicable California Standards.”

193. COMAR 26.11.34.02B(4), through its incorporation of the CA LEV Regulations, prohibits the use of defeat devices in any new light-duty vehicle and certain other vehicles manufactured in model years 2004 through 2019. COMAR 26.11.34.02B(4); *see also* 13 CCR §§ 1961(d) (incorporating *California 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures And 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles*, which in turn incorporates 40 C.F.R. §§ 1809-10 and -12, the prohibition of defeat devices).

194. COMAR 26.11.34.02B(6), through its incorporation of the CA LEV Regulations, prohibits the use of defeat devices in any new light-duty vehicle and

certain other vehicles manufactured in model years 2015 and beyond. COMAR 26.11.34.02B(4); *see also* 13 CCR § 1961.2(d) (incorporating *California 2001 through 2014 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures And 2009 through 2016 Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles*, which in turn incorporates 40 C.F.R. §§ 1809-10 and -12, the prohibition of defeat devices).

195. COMAR 26.11.34.02B(4) and (6) also require that any new motor vehicle or new motor vehicle engine that is certified by CARB to comply with the emissions standards listed in 13 CCR §§ 1961(a) (model years 2004 through 2019) or 1961.2(a) (model years 2015 and beyond) must comply with those emissions standards. COMAR 26.11.34.02B(4) and B(6).

196. COMAR 26.11.34.06A provides that “[e]ffective with model year 2011, and for each subsequent model year, compliance with the California Fleet Average NMOG Requirements in Maryland shall be demonstrated by each motor vehicle manufacturer.” In addition, COMAR 26.11.34.13A(2) requires that the motor vehicle manufacturer demonstrate compliance with the California Fleet Average NMOG by submitting an annual report to the Department.

197. COMAR 26.11.20.02, provides that no person may “remove, alter, or otherwise render inoperative, exhaust emission control. . . or any other air

pollution control device which has been installed as a requirement of federal law or regulation.”

198. For purposes of the application of these provisions, the regulations define the following terms:

a. “Person” means any individual, group of individuals . . . private, public, or municipal corporation. COMAR 26.11.01.01B(34)

b. “California Standards” means the comprehensive set of requirements defined by California Certification Requirements, California Warranty Requirements, California Assembly Line and In-Use Requirements, California Recall Requirements, California Fleet Average NMOG Requirements, California Fleet Average Greenhouse Gas Requirements, and California Zero Emission Vehicle Requirements. COMAR 26.11.34.04B(7)

c. “California Fleet Average NMOG Requirements” means the requirements established under Title 13 CCR §1961(b)(1), including all calculation procedures and credit and debit provisions specified in Title 13 CCR §1961. COMAR 26.11.34.04B(5).

d. “Certification” means a finding by CARB that a motor vehicle, motor vehicle engine, or motor vehicle pollution control

device has satisfied the criteria adopted by the state board for the control of specified air contaminants from vehicular sources.

COMAR 26.11.34.04B(12)

199. Section 2-610(a) of the Environment Article authorizes the Department to seek civil penalties of up to \$25,000 per day for each violation of any provision of Title 2 of the Environment Article or any rule, regulation, or order adopted or issued thereunder. Each day a violation continues is a separate violation.

V. CAUSES OF ACTION

COUNT I

(VIOLATION OF THE MARYLAND CLEAN CAR ACT AND COMAR 26.11.34.05 BY BRINGING THE SUBJECT VEHICLES INTO MARYLAND WITHOUT VALID CARB EXECUTIVE ORDERS)

200. The Department re-alleges the facts above and incorporates them herein by reference.

201. Pursuant to § 2-1104 of the Environment Article and COMAR 26.11.34.05, a motor vehicle subject to the Maryland's Low Emissions Vehicle Program may not be transferred into Maryland unless that new motor vehicle has been certified by CARB to comply with all applicable California Standards.

202. For each of the model years 2011 through 2015, Volkswagen transferred the 12,935 Subject Vehicles into the State with invalid CARB Executive Orders. The Defendants obtained the CARB Executive Orders by

submitting to CARB fraudulent emissions data and information that failed to disclose the existence of the defeat devices.

203. Defendants' transfer into Maryland of each and every one of the 12,935 Subject Vehicles is a violation of Environment Article § 2-1104 and COMAR 26.11.34.05 for each vehicle transferred into the State.

204. Section 2-609 of the Environment Article authorizes the Department to bring a civil injunctive action or a penalty action under § 2-610 of the Environment Article for violations of Title 2 of the Environment Article or any regulation adopted under Title 2.

205. Section 2-610 provides that "[a] person who violates any provision of this title or any rule, regulation, or order adopted or issued under this title is liable for a civil penalty not exceeding \$25,000, to be collected in a civil action in the circuit court for any county. Each day a violation continues is a separate violation under this section."

COUNT II
**(VIOLATION OF MARYLAND'S LOW EMISSIONS VEHICLE
PROGRAM BY CAUSING THE SUBJECT VEHICLES TO EMIT NO_x IN
EXCESS OF THE STATE'S NO_x EMISSIONS LIMITS FOR LIGHT DUTY
MOTOR VEHICLES)**

206. The Department re-alleges and incorporates by reference the allegations of all prior paragraphs of this Complaint.

207. Pursuant to § 2-1104(b) of the Environment Article, the Department has adopted as its own, and incorporated by reference, the CA LEV standards for emissions of NO_x from light duty motor vehicles that are set forth in Title 13 C.C.R. §§ 1961 and 1962.1 and incorporated into COMAR at 26.11.34.02B(4) and (6).

208. Defendants' installation and use of the defeat devices caused each of the Subject Vehicles to emit NO_x in amounts exceeding the Maryland NO_x emissions standard, in violation of COMAR 26.11.34.02B(4) and (6).

209. Defendants' installation and use of the defeat devices in each and every one of the 12,395 Subject Vehicles in Maryland caused them to emit excess NO_x emissions each time the Subject Vehicles were driven.

210. Each occasion that a Subject Vehicle was driven, Defendants' actions caused the Subject Vehicle to emit excess NO_x emissions and are separate violations.

211. Section 2-609 of the Environment Article authorizes the Department to bring a civil injunctive action or a penalty action under § 2-610 of the Environment Article for violations of Title 2 of the Environment Article or any regulation adopted under Title 2.

212. Section 2-610 provides that "[a] person who violates any provision of this title or any rule, regulation, or order adopted or issued under this title is

liable for a civil penalty not exceeding \$ 25,000, to be collected in a civil action in the circuit court for any county. Each day a violation continues is a separate violation under this section.”

COUNT III
(VIOLATION OF COMAR 26.11.34.13
BY SUBMISSION OF FALSE REPORTS)

213. The Department re-alleges the facts above and incorporates them herein by reference.

214. COMAR 26.11.34.13 provides that beginning with the 2011 model year and annually thereafter, each vehicle manufacturer shall (1) submit reports demonstrating . . . compliance with the California Fleet Average NMOG Requirements, and (2) prepare and submit the required reports in accordance with procedures defined in the California Standards.

215. For each of the model years 2011 through 2015, Volkswagen submitted to the Department Final NMOG Fleet Average Reports pursuant to COMAR 26.11.34.13 that reported inaccurate fleet averages because they were based on fraudulent NO_x emissions data for the Subject Vehicles due to the use of the defeat devices.

216. For each annual report submitted by Volkswagen, Volkswagen violated COMAR 26.11.34.13. Each submission is a separate violation.

217. Section 2-609 of the Environment Article authorizes the Department to bring a civil injunctive action or a penalty action under § 2-610 of the Environment Article for violations of Title 2 of the Environment Article or any regulation adopted under Title 2.

218. Section 2-610 provides that “[a] person who violates any provision of this title or any rule, regulation, or order adopted or issued under this title is liable for a civil penalty not exceeding \$ 25,000, to be collected in a civil action in the circuit court for any county. Each day a violation continues is a separate violation under this section.”

COUNT IV
**(VIOLATION OF MARYLAND’S ANTI-TAMPERING PROVISIONS BY
INSTALLING AND USING A DEFEAT DEVICE IN EACH OF THE
SUBJECT VEHICLES)**

219. The Department re-alleges the facts above and incorporates them herein by reference.

220. Pursuant to COMAR 26.11.20.02A, no person may “remove, alter, or otherwise render inoperative, exhaust emission control . . . or any other air pollution control device which has been installed as a requirement of federal law or regulation.”

221. By installing and using a defeat device on each and every one of the 12,935 Subject Vehicles in Maryland to render inoperative in normal, non-

emissions test operating conditions its emissions control system, Volkswagen violated COMAR 26.11.20.02A with respect to each of the Subject Vehicles.

222. COMAR 26.11.34.02B(22) – (27) requires manufacturers of new vehicles that are sold, leased, offered for sale or lease, or registered in Maryland to warrant that each such vehicle shall comply over its warranty term with all requirements of the CA LEV Regulations, Title 13 C.C.R. §§ 2035 through 2041.

223. By installing and using a defeat device on each of the Subject Vehicles to make it impossible for its emissions control system to perform as it was, and is, required to perform, Volkswagen violated the terms of its warranty and could not possibly continue to warrant that each such vehicle would comply with its warranty term and with all requirements of the CA LEV Regulations, Title 13 CCR §§ 2035 through 2041.

224. Defendants' installation and use of the defeat devices in each and every one of the 12,935 Subject Vehicles in Maryland is a separate violation of COMAR 26.11.20.02A and 26.11.34.02B(22) – (27).

225. Section 2-609 of the Environment Article authorizes the Department to bring a civil injunctive action or a penalty action under § 2-610 of the Environment Article for violations of Title 2 of the Environment Article or any regulation adopted under Title 2.

226. Section 2-610 provides that “[a] person who violates any provision of this title or any rule, regulation, or order adopted or issued under this title is liable for a civil penalty not exceeding \$ 25,000, to be collected in a civil action in the circuit court for any county. Each day a violation continues is a separate violation under this section.”

PRAYER FOR RELIEF

WHEREFORE, the Department requests that this Court, after trial on the merits, grant the following relief:

A. Order Volkswagen to pay to the Department a civil penalty of \$25,000 for each violation of (1) the Clean Cars Act, §§2-1104, and (2) COMAR §§26.11.34.02B(4), .02B(6), .02B(22)-(27), .05, .13, and 26.11.20.02A ;
and

B. Enter an order permanently enjoining Defendants from:

- i. Selling, offering for sale, introducing into commerce, or delivering for introduction into commerce into Maryland any new motor vehicle equipped with a defeat device or any new motor vehicle not eligible for sale pursuant to emissions and environmental standards in Maryland;
- ii. Bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in

compliance with emissions and environmental standards in Maryland; and

iii. Submitting or causing to be submitted false or misleading certifications to the Department;

C. Enter an order requiring Defendants to take measures to abate and mitigate their excess emissions of NOx and particulate matter;

D. Enter an order requiring Defendants to submit to a third-party monitor overseen by the court to ensure Defendants' future compliance with emissions and environmental standards in Maryland;

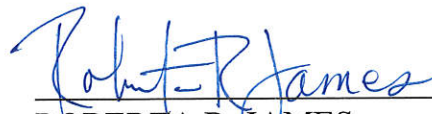
E. Grant such additional relief as the Court deems appropriate and just.

JURY TRIAL

The Department hereby requests a trial by jury.

Respectfully submitted,

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Attorney General of Maryland



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Environment

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Dated: July 19, 2016

Glossary of Acronyms and Shorthand References

AECDs- Auxiliary Emissions Control Devices

CA LEV Regulations- State of California's Low Emission Vehicle Program Regulations

CARB- California Air Resources Board

CCR- California Code of Regulations

Defendants- Volkswagen Aktiengesellschaft d/b/a Volkswagen Group and/or Volkswagen AG, Audi AG, Audi of America, Inc., Audi of America, LLC, Volkswagen Group of America, Inc., Dr. Ing. h.c. F. Porsche d/b/a Porsche AG, and Porsche Cars North America, Inc.

Department- Maryland Department of the Environment

DPF- Diesel Particulate Filter

ECU- Engine Control Units

EEO- Volkswagen Group of America, Inc.'s Engineering and Environmental Office

EGF- Exhaust Gas Recirculation

ICCT- International Council on Clean Transportation

MVA- Maryland Motor Vehicle Administration

NMOG- Non-methane Organic Gas

Porsche- Dr. Ing. h.c. F. Porsche d/b/a Porsche AG

Porsche NA- Porsche Cars North America, Inc.

SCR- Selective Catalytic Reduction

Subject Vehicles- Over a dozen separate U.S.-market Audi, Volkswagen, and Porsche models equipped with 2.0 liter and 3.0 liter diesel engines in model years 2011 through 2015, as more specifically listed in paragraph 40 of the Complaint

Volkswagen- Volkswagen Aktiengesellschaft d/b/a Volkswagen Group and/or Volkswagen AG, Audi AG, Audi of America, Inc., Audi of America, LLC, Volkswagen Group of America, Inc., Dr. Ing. h.c. F. Porsche d/b/a Porsche AG, and Porsche Cars North America, Inc.

Volkswagen AG- Volkswagen Aktiengesellschaft

Volkswagen Group of America, Inc.- VW America

VW Group- An organizational and trade term referring to Volkswagen AG's automotive brands (including Volkswagen Passenger Cars and subsidiaries Audi and Porsche) and financial services business