SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF ALBANY

STATE OF NEW YORK, and the NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, by ERIC T. SCHNEIDERMAN, Attorney General of the State of New York,

Plaintiffs,

v.

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

Defendants.

COMPLAINT

Index No.:

Assigned to Justice:

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I. INTRODUCTION

1. The State of New York and the New York State Department of Environmental Conservation ("NYSDEC") (collectively, "State") seek civil court redress, including civil penalties and injunctive relief, in New York State Supreme Court for the egregious and pervasive violations of its codified civil environmental laws caused by the defendants (collectively "Volkswagen" or "Defendants") in their efforts to boost sales of their diesel automobiles in the United States and in New York. Defendants' efforts succeeded to the extent of selling nearly 600,000 diesel vehicles to U.S. consumers, including more than 25,000 in New York, from 2008 to 2015. Defendants' violations strike at the heart of New York's civil environmental laws designed to protect public health by strictly limiting motor vehicle pollution. Those civil laws rest on the foundation that prohibiting the sale of vehicles that fail emissions tests reflecting real-world driving conditions will help protect New Yorkers from smog and other pollutants that cause premature deaths and respiratory illness.

2. Volkswagen defrauded the public and government regulators, including the State, by designing and deploying air pollution control "defeat devices" that detected and then switched on (or ramped up) air pollution control equipment when their diesel vehicles were undergoing emissions tests, and then turned off (or dialed back) the pollution control when the vehicles were driven on the road. Despite being required under law to disclose the existence of any defeat devices, Volkswagen concealed them for a decade, across multiple Volkswagen, Audi, and Porsche makes and models. The defeat devices concealed that these vehicles: (a) did not comply, or come close to complying, with applicable state emission standards during normal driving; and (b) were not the "clean" "green" vehicles described in Defendants' extensive marketing campaign aimed at American consumers.

3. 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., was plain-spoken, telling the audience "[l]et's be clear about this. Our company was dishonest with the EPA and the California Air Resources Board and with all of you, and, in my German words, we have totally screwed up."

4. 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."

5. The decision to install defeat devices was not, however, 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 emissions fraud to the public. Rather, it was the result of a willful and systematic scheme of cheating by dozens of employees at all levels of the company regarding emissions, after Volkswagen was unwilling to manufacture diesel vehicles that would meet federal and state standards in the United States. This scheme, which extended over nearly a decade, was perpetrated by Volkswagen AG and its Audi, Volkswagen and Porsche subsidiaries, through their employees, executives, and officers.

6. Defendants' unlawful conduct involved different engineering and testing teams – operating across different facilities 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 2009-2016 model years, which were sold between 2008 and 2015.

7. In addition to defrauding the state and federal agencies responsible for regulating car emissions, Volkswagen carried out a cynical fraud on the American car-buying public. It traded on the reputation for stellar engineering that Audi (whose slogan is "Truth in Engineering"), Porsche and Volkswagen enjoyed, by aggressively marketing the non-compliant diesel engines to U.S. consumers as the product of environmentally-friendly German advanced technology, thereby obtaining premiums for the vehicles on the basis of this fundamentally dishonest marketing.

8. Volkswagen's illegal and deceptive conduct had the following interrelated objectives: (i) 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, (ii) marketing supposedly "green" diesel vehicles to create an environmental "halo" effect (and thus boost brand equity) across the full spectrum of the company's car offerings, (iii) enabling Volkswagen to bring diesel cars to the U.S. market more rapidly and more cheaply than building truly emissions-compliant engines would have permitted, and (iv) 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, underperforming diesel particulate (soot) filters, and the fact that the urea tanks in Subject Vehicles equipped with selective catalytic reduction emission control systems were significantly undersized.

[1] The Subject Vehicles are more specifically identified in the chart at pages 16-17, *infra*.

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

10. Even when independent real-world driving test results in 2014 threatened public exposure of Volkswagen's systemic emissions 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.

11. 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 more than 25,000 in New York. 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 New York and in other states.

12. 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.

13. New York has adopted as state law California's strict emission control standards for NO_x emissions as part of New York's effort to address pervasive ground-level ozone (smog) pollution, especially in the New York City metropolitan area. 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.

14. In New York, the concentration of ground-level ozone exceeds the maximum level allowed under the 2008 national ambient air quality standards in ten counties, with a combined population of approximately 12.4 million people. Thus, approximately 64 percent of New Yorkers live in communities with ozone pollution above the level established by EPA as necessary to protect human health.

15. Emissions of NO_x also cause eutrophication of and excess nutrient loading in coastal and other waters, reduce the diversity of fish and other life in these waters and, 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 New York's residents by

causing human respiratory distress, cardiovascular disease, and even premature mortality. Fine nitrate and sulfate particles are also toxic to aquatic life and vegetation.

16. 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 New York and other United States jurisdictions.

17. Volkswagen believed that its deceit would go undetected, and 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 its cost-benefit calculation when it comes to whether 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.

Braunschweig, Case No. 02106-15/BE/Hn, Defendants' Answer (Feb. 29, 2016) at 47.

18. Worse yet, Volkswagen employees destroyed documents in the wake of the defeat device scandal after being alerted to an impending litigation hold, and Volkswagen AG Supervisory Board awarded Management Board members $70 million in executive compensation for 2015 alone. These actions highlight how stubborn and unrepentant the culture

at Volkswagen is that gave rise to the systematic cheating and deception described in this Complaint.

19. 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 New York, 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 New York, 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 New York and other states in their partial settlement with Volkswagen.

20. The State of New York and the NYSDEC (collectively, "Plaintiffs" or "State"), by and through the Attorney General of the State of New York, Eric T. Schneiderman, bring this action against Defendants to enforce: (a) article 19 of the New York Environmental Conservation Law ("ECL"), which protects the State's air quality from pollution, and its implementing regulations found at 6 NYCRR Parts 200, *et seq*., including the "Emission Standards for Motor Vehicles and Motor Vehicle Engines" set forth in 6 NYCRR Part 218; and (b) New York Executive Law § 63(12). These statutory and regulatory schemes are described in more detail in paragraphs 248 to 256, *infra*.

21. Together with appropriate injunctive and equitable relief and reasonable costs of investigation and litigation, the State seeks imposition against Defendants of civil penalties in amounts sufficient to punish them for their conduct and deter them, as well as other automakers, from engaging in and repeating this form of deliberate misconduct.

II. PARTIES

22. Plaintiff State of New York is a sovereign entity that brings this action on behalf of its citizens and residents.

23. Plaintiff NYSDEC is an executive agency of the State of New York, and is authorized to administer and enforce the ECL and regulations promulgated thereunder.

24. The New York Attorney General is the chief law enforcement officer of the State and is authorized to bring this action pursuant to ECL §§ 71-2103 & 71-2107, and N.Y. Executive Law § 63(12).

25. 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, an increase in €7.784 billion from 2014.

26. 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.

27. 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.

28. 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.

29. 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.

30. Volkswagen Group of America, Inc. (VWGoA) is a New Jersey corporation that was registered in New York on May 24, 1991. VWGoA 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. It is a wholly-owned subsidiary of Volkswagen AG. Within VWGoA, 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. Audi of America, LLC, also known as Audi of America, Inc. ("AoA"), is an operating unit of and wholly owned by VWGoA. VWGoA is responsible for the acts of AoA. AoA is closely controlled and directed by Volkswagen AG and Audi AG.

31. Dr. Ing. h.c. F. Porsche AG 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.

32. Porsche Cars North America, Inc. ("Porsche NA") is a Delaware corporation that was registered in New York on April 27, 1989, and has its principal place of business at One Porsche Drive, Atlanta, Georgia. Porsche NA carries out much of the business of Porsche in the United States. Porsche NA is a wholly-owned subsidiary of Porsche and is closely controlled and directed by Porsche.

33. Each of the aforementioned Defendants is a "person" as that as that term is defined under New York air pollution regulations at 6 NYCRR § 200.1(bi).

34. On June 7, 2016, the State sent Defendants pre-litigation notice by certified mail to their known counsel. The State also sent Defendants' counsel a courtesy copy of the pre-litigation notice by electronic mail on June 7, 2016.

III. JURISDICTION AND VENUE

35. 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 ECL §§ 71-2103 & 71-2107 and N.Y. Executive Law § 63(12).

36. As set forth above, Defendants are the German automaker Volkswagen AG, and its subsidiaries Audi AG and Porsche AG, and their wholly-owned American subsidiaries, VWGoA and Porsche NA.

37. At all relevant times, Volkswagen AG, its subsidiaries Audi AG and Porsche AG, and their subsidiaries VWGoA and Porsche NA, have purposefully availed themselves of this forum; among other things, Volkswagen AG, Audi AG and Porsche:

a. designed the Subject Vehicles, with their defeat device software, for sale within the U.S., including within New York;

b. directed VWGoA's Michigan-based Engineering and Environmental Office ("EEO") and Porsche NA to submit to U.S. regulators applications for certification to sell the Subject Vehicles in the U.S., including within New York;

c. directed VWGoA's EEO and Porsche NA to make periodic submissions and certifications regarding the Subject Vehicles' compliance with applicable emissions

standards and requirements to U.S. regulators, including the NYSDEC, as required by 6 NYCRR Part 218;

d. oversaw and/or directed VWGoA's, AoA's and Porsche NA's development and placement of the false and misleading marketing and advertising of the Subject Vehicles (including as "Clean Diesel") to U.S. consumers, including in New York;

e. directed VWGoA, AoA and Porsche NA to expressly warrant to New York buyers and lessees the Subject Vehicles' compliance with applicable emissions standards;

f. directed VWGoA to issue to New York buyers and lessees false and/or misleading recall notices in or around January and March 2015; and

g. controlled and directed VWGoA's, AoA's and Porsche NA's interactions with and message to U.S. regulators and the public, including consumers in New York, in the aftermath of the 2014 independent study that led to the exposure of Volkswagen's fraud to the public.

38. In addition, Defendants transact or have transacted business in New York between 2008 and 2016 through at least 97 New York car dealerships.

39. Accordingly, the exercise of specific jurisdiction over all Defendants is consistent with due process.

40. Venue lies in Albany County pursuant to NY CPLR § 503(a) because, *inter alia*, NYSDEC's headquarters is in Albany.

IV. FACTS

41. Unless otherwise stated, the allegations set forth in this Complaint are based upon information obtained from the documents produced by Defendants, the testimony of Defendants' current and former employees, publicly available press reports, and information and documents

obtained from other third-party sources through the New York Attorney General's independent investigatory efforts.

A. Automobiles and Air Pollution

42. Americans love their cars. The Federal Highway Administration reported that in 2014, there were almost 114 million automobiles registered in the United States. The federal agency reported that 5.2 million automobiles were registered that year in New York, and nearly 12.8 million cars were registered in the states bordering New York.

43. And those automobiles were driven. EPA reported that in 2014, passenger cars (automobiles primarily used to transport twelve people or less) were driven over two trillion miles, and sport utility vehicles and other light duty trucks were driven over 638 billion miles.

44. Given the prevalence and use of automobiles in the U.S. and in New York, controlling the emissions of harmful air pollutants emitted by those vehicles is critical to protect human health and the environment.

B. Defendants Acted in Concert to Violate Environmental Laws and Perpetrate a Massive Fraud on Regulators and Consumers

45. At all times material to this Complaint, the Defendants worked in concert with the common objective of engaging in the emissions cheating scheme and fraud 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:

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

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

c. The three brands share engineering research and development and engine concepts and designs, including as relevant here Volkswagen's incorporation of Audi-designed software and hardware elements into the first two generations of its EA 189 diesel engine for Subject Vehicles, and Porsche's use of the Audi 3.0 liter diesel engine for its Cayenne SUV Subject Vehicle;

d. 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 have 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 Winterkorn 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 for 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 liter diesels. In 2011, Hatz moved to the top engineering job at Porsche, where he oversaw its 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. Hackenberg then moved to Volkswagen from 2007 to 2013, when both companies were developing and implementing their U.S.-market defeat device strategies, before moving back to Audi from 2013 to 2015;

iv. Oliver Schmidt, who headed the EEO office within VWGoA 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 Volkswagen Jetta in 2006; by 2014-15, he was conducting tests for VWGoA 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;

e. 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.[2]

[2] Attached as an Appendix to this Complaint is a schematic representation reflecting the corporate positions of many of the individuals referenced in the Complaint, including their movement from one Defendant to another over time.

46. At all relevant times, each Defendant acted: (a) as a principal; (b) under express or implied agency; and/or (c) with actual or ostensible authority to perform the acts alleged in this complaint on behalf of every other named Defendant.

47. At all relevant times, each Defendant knew – or should have known – that the other Defendants were engaging in or planned to engage in violations of law alleged in this Complaint. Despite knowing that the other Defendants were engaging in such unlawful conduct (or despite the fact that they should have known that the other Defendants were engaging in unlawful conduct), each Defendant nevertheless facilitated the commission of those unlawful acts. Each Defendant intended to and did encourage, facilitate, or assist in the commission of the unlawful acts, and thereby aided and abetted the other Defendants in the unlawful conduct.

48. At a minimum, each of the Defendants 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 and frauds, as described in this Complaint.

49. Each Defendant engaged in multiple violations of New York's environmental laws. The conduct of each of Volkswagen AG, Audi AG, Porsche and VWGoA was knowing and willful.

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

50. 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 ("TDI") 2.0 and 3.0 liter light duty vehicles (the Subject Vehicles) throughout the U.S., including in New York.

51. 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.

52. The Subject Vehicles included several makes and models sold or leased in the United States for the 2009 through 2016 model years. For the 2.0 liter vehicles, there were three "generations" of TDI 2.0 liter vehicles manufactured by Volkswagen during the 2009-16 model years that differed in engine design and/or their emissions control system. The makes and models for each of the 2.0 liter and 3.0 liter Subject Vehicles are summarized in the table below:

2.0 Liter Diesel Models

Model Year (MY)	Generation (Gen)/Engine	EPA Test Group	Vehicle Make and Model(s)
2009	Gen 1 /EA189	9VWXV02.035N 9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	Gen 1 /EA189	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	Gen 1 /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)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Porsche Cayenne Diesel
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

For simplicity and clarity, throughout this Complaint, 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 the "2.0Ls"; the 3.0 liter models will be referred to collectively as the "3.0Ls"; and the 2.0Ls and 3.0Ls will be referred to collectively as the "Subject Vehicles."

53. Defendants sold, leased, and warranted nearly 500,000 2.0Ls and more than 88,000 3.0Ls in the United States. More than 25,000 of these Subject Vehicles were sold or leased in New York.

54. As of November 24, 2015, there were 23,632 Subject Vehicles registered in New York through New York's Department of Motor Vehicles.

55. 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 all were equipped with a diesel particulate, or soot, filter ("Soot Filter").

56. Exhaust Gas Recirculation is used primarily to reduce NO_x emissions by redirecting exhaust back into the engine's intake system and mixing it with fresh air, thereby reducing the amount of oxygen in the engine, lowering the combustion temperature and reducing the creation of NO_x.

57. The Soot Filter removes particulate emissions (that is, soot) from the engine's exhaust. The soot accumulates in the Soot Filter until it is periodically burned off and emitted as ash in what are known as "Soot Filter Regenerations" to prevent the Soot Filter from becoming clogged or overloaded.

58. 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 Soot Filter), they also have disadvantages:

a. Use of Exhaust Gas Recirculation increases soot, and necessitates more frequent Soot Filter Regenerations to prevent clogging, thereby placing strain on the Soot Filter and increasing the risk of premature Soot Filter failures.

b. Soot Filter Regenerations in turn increase NO_x emissions, increase fuel consumption and place strain on the engine and the components of the emissions control system, including the Soot Filter itself, due to the high temperatures needed for regeneration.

59. 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.

D. 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 Over Ten Years

60. In trying to leverage its existing diesel engine technology for the U.S. market, Volkswagen faced an engineering challenge: diesel engines, though generally more fuel-efficient than gasoline engines, are high NO_x emitters, making compliance with U.S. regulation of NO_x emissions particularly challenging.

61. To sell the new Subject Vehicles in the U.S., Volkswagen AG, and Audi AG (acting through VWGoA's EEO) and Porsche (acting through Porsche Cars NA) applied for and obtained Certificates of Conformity from EPA and 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 engine function which senses temperature, vehicle speed, engine RPM, or any other parameter for the purpose of activating, modulating, or deactivating the operation of any part of the emission control system. For each such AECD, Defendants were required to provide: a written, detailed justification; the parameters the AECD senses and controls; and a rationale for why the AECD is not a "defeat device."

62. An AECD that operates to thwart applicable emissions standards by reducing the effectiveness of an automobile's emissions control system in everyday driving conditions is known in the industry as a "cycle-beater," and in U.S. legal terms as a "defeat device." Defeat devices are expressly prohibited under federal and New York law. 42 U.S.C § 7522(a)(1); 6 NYCRR §§ 200.9 and 218-2.1(a).

63. Defendants certified the new Generation 1s, Generation 2s and 3.0Ls to Tier 2/LEV II ("LEV II") emissions standards, which impose a NO_x emission limit of 0.05 g/mi at 50,000 miles and 0.07 g/mi at the Full Useful Life of 120,000 miles.

64. Defendants certified the new Generation 3s to the Tier 2/LEV III ("LEV III") emissions standards, which imposed a combined non-methane organic gas and NO_x limit of 0.125 g/mi and a durability standard of 150,000 miles.

65. 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 cheated.

66. They implemented a 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 altered 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 permissible limits.

67. For example, the defeat devices on the 2.0 liter cars work by directing the engine to run in one of two modes: a "testing" mode during which the car's emissions systems are fully operational, and a "driving" mode during which the car's emissions systems are substantially deactivated.

68. Every time one of these cars is started, it automatically enters into "testing" mode. During the first several minutes of operation, the software checks the car's acceleration and

speed profile against the tightly-defined acceleration and speed profiles of the government-specified emissions test cycles used to test a car's emissions.

69. As an illustration, one of these test cycles, the FTP 75, tests a car's emissions over a fixed cycle of acceleration and deceleration run on a stationary test bench. Over the first several minutes of the cycle, the car must accelerate from a stop to the equivalent of 31 miles per hour ("mph"), cruise briefly, come to a stop again, accelerate again to 57 mph, cruise briefly, come to a stop again, accelerate again to 36 mph, and then come to a stop again.

70. If the defeat device software determines that the car is running in a test cycle, it keeps the engine in "testing" mode so that the car's emissions controls remain fully operational. If on the other hand the software determines the car is being driven in normal, random conditions as occur in real-world driving, the defeat device software switches the engine into "driving" mode, during which emissions controls are substantially deactivated, with the effect that NOx emissions increase by a factor of up to 40 times above legal limits.

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

71. The origin of Volkswagen's defeat devices goes back at least to the emissions-related engineering challenges that the company's Audi division encountered in 1999, as it embarked on the development of its large 3.0 liter V6 diesel luxury cars for the European market.

72. 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 emissions testing.

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

74. 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

75. In the early-mid 2000's, 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 (sometimes called by its trade name "AdBlue") in the exhaust stream, thereby creating harmless nitrogen and water. The SCR technology in use 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 (MY) 2009 Jetta) with one or more tanks capable of storing gallons of the urea-based emissions fluid.

76. In 2006, the engineers and managers responsible for developing the Generation 1's 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 require urea tanks.

77. 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, oxygen-lean mode to activate

the catalytic converter, so as to enable it to break down its trapped NO_x into benign nitrogen and oxygen.

78. Early in the development of the Lean Trap system, however, it became apparent to Volkswagen's engineers that activating the Lean Trap and EGR as frequently as necessary to bring NO_x emissions within legal limits would produce too much soot for the Soot Filter. The Soot Filter would in turn clog and break within just 50,000 miles of operation – far sooner than the initially 120,000- and later 150,000-mile – Full Useful Life, U.S. durability standard Volkswagen was required to meet.

79. 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.

80. As described above, the defeat devices Volkswagen implemented in the Generation 1s featured software that could detect when the vehicles were undergoing emissions testing. During an emissions test, the defeat device software ran the engine in "testing" mode, which featured frequent Lean Trap regenerations and robust EGR to bring NO_x emissions down to compliant levels. In contrast, during normal driving conditions, the defeat device software ran the engine in "driving" mode, which substantially reduced the frequency of Lean Trap regenerations and reduced EGR, resulting in NO_x emissions between ten and forty times the legal limit.

81. Volkswagen incorporated the Lean Trap regeneration and EGR defeat devices described above in the ECUs of the MY 2009-2014 Jetta, Golf, A3 and New Beetle diesel

models. Volkswagen sold over 300,000 of these Generation 1 vehicles in the United States, including in New York.

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

82. At the time 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 MY 2009 of a new line of luxury diesel SUVs in the U.S. market: the Audi Q7 and Volkswagen Touareg, both equipped with SCR systems.

83. 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.

84. 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, Volkswagen AG), as well as "H. Müller," which another Audi executive testified is a reference to then the head of Project Management for Audi AG and now Mr. Winterkorn's successor as CEO of Volkswagen AG.

85. Ultimately, Volkswagen and Audi decided not to expend the time and money necessary to re-engineer the 3.0Ls 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.

86. Instead, they decided once again to employ cycle-beating defeat device software.

87. In addition to the EGR defeat device implemented in the Generation 1s, the 3.0Ls also featured a urea-dosing defeat device. The urea-dosing defeat device operated to increase urea dosing when the engine software recognized an emissions test cycle and 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.

88. Audi approved and installed both the urea-dosing defeat device and the EGR defeat device for production into the 3.0Ls 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. Not including the Porsche Cayenne diesel SUVs discussed below, approximately 74,500 3.0Ls were sold in the United States, including in New York.

89. Upon information and belief, Volkswagen may have used other defeat devices in its 3.0L cars that it has not yet disclosed to New York, NYSDEC or other government regulators.

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

90. In 2009, Volkswagen turned its attention to the planned roll-out in the U.S. of the MY 2012 Generation 2 Selective Catalytic Reduction-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 chassis to incorporate urea tanks large enough to meet the 10,000-mile refill interval to which they certified the Generation 2s.

91. Rather than resolve this engineering problem (or seeking to mitigate it by certifying the vehicles to shorter service intervals), Volkswagen opted to implement yet another

defeat device, one that would control EGR and urea dosing. Like the Generation 1 defeat device software, Volkswagen programmed the new defeat device to determine whether the vehicle was undergoing an emissions test based on acceleration and speed profiles of the emission test cycles and then to keep the engine in emissions-compliant "testing" mode if it was undergoing an emissions test and put it into a highly-polluting "driving" mode if it was not.

92. In addition, Volkswagen added another software feature to this defeat device to better ensure the software would recognize when the car was undergoing an emissions test. Volkswagen's engineers understood that it was only during the stationary bench test, and not in real-world conditions, that the cars would undergo repeated acceleration and braking upon start-up without the steering wheel ever being turned. On these Generation 2 cars, therefore, Volkswagen programmed the defeat device to maintain the car in the less-polluting "testing" mode when the prescribed accelerations and decelerations occurred and the steering wheel remained still.

93. In "testing" mode, the Generation 2 defeat device software increased EGR and urea dosing to bring the NOx emissions within regulatory limits. Outside of test conditions, however, the defeat device software reduced the urea dosing rate by half to conserve urea and reduced Exhaust Gas Recirculation.

94. 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, including in New York, spanning Model Years 2012 to 2014. In real-world conditions, the Generation 2s sold in this country exceeded lawful NO_x emissions levels by some five to twenty times.

v. The Fifth Defeat Device: The Porsche Cayenne

95. In 2010, Volkswagen AG acquired Porsche, and 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.

96. 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 US-market 3.0L, lightly re-tuned for higher power to suit Porsche's high-performance image. In supplying the engine, Audi personnel educated their counterparts at Porsche about the engine's primary features, including the urea-dosing strategy.

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

98. 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 MY 2013 Cayenne diesel SUV. Approximately 13,600 of these defeat device-equipped Porsche vehicles were sold in the United States, including in New York.

99. 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

100. In or about 2013, Volkswagen discontinued the Lean Trap emissions system in favor of an SCR-based system for all its MY 2015 2.0Ls (the Beetle, Golf, Jetta, Passat, and the Audi A3).

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

102. Volkswagen sold nearly 100,000 MY 2015 Generation 3s in the United States, including in New York. These cars continued to be sold even after Volkswagen and Audi became aware of independent real-world studies that made clear that the Subject Vehicles were emitting NO_x in real driving conditions far in excess of the legal limits.

vii. Volkswagen's Manipulation of On-Board Diagnostics to Conceal the Defeat Devices

103. New York and other states have adopted Inspection and Maintenance ("I & M") programs that require all registered motor vehicles to pass periodic inspection tests that evaluate, among other things, the vehicles' emissions systems. In New York, as elsewhere, the inspection tests do not directly measure the cars' emissions, but rely instead on the vehicles' on-board diagnostics ("OBD") to relay information on whether the cars' emissions system is functioning properly. State and federal law require auto manufacturers to equip their cars with OBD systems that electronically report failures of emissions systems to mechanics or inspectors during service or inspection.

104. Properly-functioning OBD systems would have reported the failure of Volkswagen's defeat-device equipped cars to run their EGR systems properly and would have alerted inspectors, mechanics, and car owners that the cars' emissions systems were not functioning correctly and required repair.

105. To allow its defeat-device equipped vehicles to pass New York's (and other states') inspection and maintenance tests, Volkswagen therefore needed to, and in fact did, implement a further cheat: It programmed the OBD systems on its defeat-device equipped cars to falsely report at inspection time that the automobiles' emissions systems, including EGR, were working properly.

106. This deception subverted New York's I & M program and caused a substantial waste of time and resources; for a period of more than seven years, despite subjecting the Subject Vehicles to thousands of periodic inspections, New York's inspectors, mechanics, and car owners were misled into believing that Defendants' vehicles complied with applicable environmental laws when in fact they were grossly violating those laws.

E. Volkswagen and Audi Implemented the Defeat Devices at Issue Fully Knowing They Were Illegal

107. 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 Device ("EI-AECDs").

108. These EI-AECDs may be legal if they are designed to run only in limited, extreme driving circumstances to protect the engine, and 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.

109. 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 VWGoA's Engineering and Environmental Office (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 EI [Emissions Increasing]-AECDs." They further promised to provide CARB a more complete description of the AECDs by Spring 2007, in particular noting: "[p]er [C]ARB request, identify, describe function (e.g., activate, deactivate, or modulate the operation of emission control devices), describe effect on emission levels[.]"

110. 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 VWGoA colleagues and multiple engineers at Audi AG and Volkswagen AG in Germany in November 2006, VWGoA 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."

111. A few days later, Leonard Kata, Manager of Emission Regulations and Certification at VWGoA 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.

112. 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.

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

> Both EPA and [C]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."

114. 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 VWGoA 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.

115. 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 breaking the law and risking the imposition of fines was an acceptable cost of doing business.

F. Internally, Volkswagen and Audi Executives and Engineers Openly Discussed the Development of Defeat Devices

116. While 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 as part of the normal course of business.

117. Discussions concerning defeat device development and implementation taking place over nearly the next decade would include dozens of executives, senior managers and engineers. These included, for example:

a. Frank Tuch (2010-2015 head of Volkswagen AG Quality Management and a direct report 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 Diesel Engine Development for Four-Cylinder Passenger Car Engines) and Mathias Klaproth (head of Diesel System Applications within Powertrain Electronics);

e. Numerous managers and engineers within these divisions, including Burkhard Veldten, Volker Gehrke and 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 Diesel Exhaust Gas Aftertreatment for V6 Engines) and Martin Gruber (Director of Audi Diesel Engine Thermodynamics Department); and

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

118. Among other things, these communications detail the use of the defeat devices to reduce raw emissions during test cycles and reduce EGR and Soot Filter regeneration during real driving conditions, and otherwise described the expansion, modification and optimization of the cycle-beating Acoustic Function, well into 2014.

119. A February 29, 2016 statement of defense filed by Volkswagen in a pending European shareholder lawsuit (referenced in paragraph 17, *supra*) 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.
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> ***
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> 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).

G. Volkswagen and Audi Continued to Deny the Existence of the Defeat Devices, Mislead Regulators and Deceptively Market the Subject Vehicles Even After Initial Evidence of their Existence Caught the Attention of U.S. Regulators

120. While acknowledging the defeat devices relatively openly in internal communications, Volkswagen and Audi actively sought to conceal the defeat devices from regulators, researchers and the public. Among other things, they:

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 that exceeded 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 that falsely represented full compliance with applicable emissions and durability standards.

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

121. On March 31, 2014, an Audi AG engineer alerted colleagues at Volkswagen AG and VWGoA 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"). The ICCT Report 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 ("PEMS") – essentially a lightweight laboratory used to test and/or assess mobile source emissions in real-world conditions – rather than on a dynamometer.

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

123. Thereafter, VWGoA's Environmental and Engineering Office 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).

124. Documents and information provided by managing engineers at Volkswagen AG, Audi AG, VWGoA and AoA (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 Volkwswagen 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 (in particular, reduced EGR and lowered urea dosing) 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.

125. Indeed, in a May 23, 2014 letter to Martin Winterkorn, CEO and Chairman of Volkswagen AG's Board of Managers, Group 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.

126. With the risks of detection in mind, Volkswagen embarked on a strategy to deflect scrutiny. It publicly denied that the Subject Vehicles failed emissions requirements. It neutrally 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.

127. Yet as the executives at Volkswagen AG, Audi AG, VWGoA, and AoA who worked on this damage-control effort well knew, the proposed software modifications would:

a. only bring the Generation 1's emissions down to ten times the legal limits, while at the same time increasing fuel consumption;

b. only bring the Generation 2's emissions down to five times the legal limits;

c. only bring the Generation 3's (*i.e.*, all the MY 2015 Subject Vehicles with 2.0 liter engines, which were about to roll off the production line) emissions down to double the legal limits; and

d. in the case of the SCR-equipped Subject Vehicles – the Generation 2s, the Generation 3s and the 3.0Ls – nearly double urea dosing requirements, thereby necessitating additional urea tank refills for a significant percentage of drivers.

128. And so began Volkswagen's seventeen month-plus campaign, from May 2014 until September 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: Volkswagen's installation of illegal defeat devices.

ii. Volkswagen's Desperate Efforts to Deflect Scrutiny of the MY 2015 Generation 3s About to Hit the U.S. Market

129. One of the most pressing dilemmas Volkswagen faced in the immediate aftermath of the ICCT report related to the SCR-equipped MY 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.

130. In or around March 2014, just before the ICCT Report was released, Volkswagen had applied to CARB and EPA to certify the MY 2015 Generation 3s to the LEV III – a more stringent standard than the LEV II standard to which they had certified the earlier, MY 2009 to MY 2014 2.0 liter Subject Vehicles.

131. 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.

132. 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 percent of Generation 3 owners would have to refill their urea tanks well before 10,000 miles.

133. 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.

134. 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."

135. 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.

136. 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, VWGoA's EEO, and AoA.

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

a. suggested that 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 percent of drivers would have to refill their urea tanks before 10,000 miles (according to Audi AG and Volkswagen AG estimates, at between 6,000 and 8,000 miles); and

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

138. 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

139. At the same time it was covertly managing the Generation 3 defeat device issue, Volkswagen was also attempting to downplay the scope and severity of the problem with the Generation 1 and Generation 2 Subject Vehicles. Volkswagen was particularly focused on preventing CARB from conducting its own tests on the Generation 1s, over 400,000 of which were already on U.S. roads spewing NO_x at up to forty times the legal limits.

140. At an October 1, 2014 teleconference with CARB attended by multiple managers from VWGoA's EEO, including its former and current head (Oliver Schmidt and Stuart Johnson) and Emission Regulations and Certification Manager (Len Kata), and Volkswagen AG engineer Juergen Peter, Volkswagen cited phony technical explanations for the high emissions, omitted any mention of the true cause of the high NO_x emissions and assured regulators it could "optimize" the vehicles' emissions performance by conducting software recalls.

141. Volkswagen made these misrepresentations despite its knowledge that the proposed software recalls – recalls whose true purpose was to turn down the defeat devices in the Generation 1s (by increasing EGR and Lean Trap regeneration) and Generation 2s (by increasing EGR and urea dosing) – would not bring the vehicles into compliance with applicable emissions standards and, further, that they would increase fuel and urea consumption, respectively.

142. 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" "upgrade." In its description of the corrective action to CARB and EPA in those submissions, Volkswagen did not explain 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.

143. The notices to dealers and consumers issued thereafter, in or around January 2015, were similarly misleading and deceptive, stating: "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."

144. These notices were indisputably misleading. 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 substantially increase, in many cases requiring consumers for the first time to refill their urea tanks between 10,000-mile service intervals.

145. Volkswagen's March 2015 recall-related submissions concerning the software update for the Generation 1s were similarly deceptive, again describing the action as a "pro-active" "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."

146. 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 MIL 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 3.0Ls

147. Around the same time Volkswagen was meeting with regulators to describe the proposed 2.0L recalls and offering a host of improbable reasons for the NO_x discrepancies the recalls were meant to fix, regulators' suspicions about the 3.0Ls started to build.

148. Those suspicions were well-founded. Internal PEMS tests on multiple 3.0Ls conducted by Audi itself (starting in Fall 2014) reflected real world NO_x emissions many times higher than permissible limits.

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

150. Audi attributed the discrepancy between NO_x emissions on the dyno and on the PEMS 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." 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 fulfills the requirement of the AECD regulation. As a consequence Audi requests an unconditional [Executive Order].

151. Although it had conducted additional PEMS tests of earlier and current 3.0L model years, and obtained considerably worse results (NO_x emissions during real drive conditions at 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 3.0L models. At the same time, Defendants continued to deceptively market and sell the 3.0Ls to consumers.

v. Volkswagen's Continuing Efforts to Mislead Regulators

152. During 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 MY 2016 Generation 3s and the 3.0Ls, for which neither EPA nor CARB had yet issued certification, were beset by the same issues.

153. CARB officials followed up multiple times, requesting from Volkswagen more specific information regarding how the software controlled urea dosing on the MY 2016 2.0Ls and 3.0Ls for which Volkswagen was then seeking certification. Engineers and officials at Volkswagen AG, Audi AG and VWGoA were in frequent contact with CARB, but would not provide CARB clear answers, stringing CARB along for months.

154. 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 engineering executive 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 Soot Filter, Peter begged: "Come up with the story please!"

155. 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 TDI 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 (VWGoA EEO-head Stuart Johnson) admonishing him for allowing his staffer to send such an open email to those recipients.

156. In June 2015, CARB conducted confirmatory testing on a 2012 SCR-equipped Passat (a 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."

157. Thus, CARB indicated it could not certify the MY 2016 Generation 3s 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.

H. Volkswagen Admitted Its Misconduct on the 2.0Ls Only When it Thought Doing So Would Lead to Certification of the MY 2016 Generation 3s

158. Volkswagen's repeated attempts to assure CARB that the "Gen 3 2016 MY did not share the [Gen 2] strategy or concern" were to no avail.

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

160. On or about July 20, 2015, upon learning that CARB planned to test a MY 2015 Generation 3 to resolve questions about whether these vehicles (and the MY 2016 Generation 3s) needed a software update, VWGoA EEO head Stuart Johnson internally suggested 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."

161. In an email dated July 21, 2015, VWGoA President and CEO Michael Horn conveyed the urgency of the situation to multiple board members and executives in Germany (including Christian Klingler, the 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 MY 2016

Generation 3s was at risk if Volkswagen failed to provide CARB all the outstanding information it was awaiting.

162. Thereafter, on or about August 5, 2015, Volkswagen AG Engine Development head (and former VWGoA EEO head) Oliver Schmidt and VWGoA 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 the 10,000-mile service intervals.

163. A week later, on August 12, 2015, while still withholding the MY 2016 Generation 3 certifications because of concerns the MY 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."

164. After extensive internal discussion by and among VWGoA 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 MY 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."

165. Johnson's effort to allay CARB's concerns again failed to assuage the regulators. As Johnson reported in an August 12, 2015 email 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."

166. On August 18, 2015, Volkswagen AG Drivetrain Development head Friedrich Eichler sought authority from then-Volkswagen Passenger Car Board member and head of Engine Development Heinz-Jakob Neusser to send multiple Volkswagen AG diesel department heads (together with current and former VWGoA EEO heads Stuart Johnson and Oliver Schmidt) to meet with CARB the following day, August 19, 2015. The express goal of the meeting was to secure the release of the MY 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 – acknowledge problems in the Generation 1s and Generation 2s; promise another software update to the Generation 2s in mid-2016; and continue to assure CARB that the lessons learned from the Generation 2 issues had informed and improved the emissions controls in the Generation 3s.

167. 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 Generations 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.

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

169. By late August 2015, Volkswagen had more reason to be concerned than simply the growing number of MY 2016 Subject Vehicles piling up at the ports. CARB obtained a MY 2016 Generation 3 for testing on August 26, 2015, making the discovery of the Defendants' fraud virtually 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.

170. 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 VWGoA 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."

171. At that September 3, 2015 meeting, Volkswagen admitted for the first time that the Generation 2 ECUs had two calibrations: one for real world driving (Calibration 1) and one

for testing (Calibration 2). Volkswagen disclosed that in Calibration 1, the urea dosing, 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.

172. Far from convincing the regulators that certification of the MY 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 Soot Filter regenerations post-software update).

173. 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."

174. 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."

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

175. Notwithstanding the regulatory action concerning the 2.0Ls and the intense public scrutiny they were facing, Defendants continued to publicly deny the existence of illegal defeat devices in the 3.0Ls.

176. At the same time, however, 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 3.0Ls, without expressly acknowledging the presence in these vehicles of illegal defeat devices like those Volkswagen had admitted existed in the Generation 2 vehicles.

177. CARB, however, conducted its own Special Cycle testing on a MY 2016 Audi A6 and a MY 2014 Volkswagen Touareg. 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 an MY 2016 Audi A6 and a MY2014 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 Volkswagen 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."

178. 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[.]"

J. The German Defendants and VWGoA Knew and Concealed that the Subject Vehicles Emitted Toxic NO_x In Amounts Far Higher Than Permitted Under the Applicable Emissions Standards

179. At all relevant times, the German Defendants – Volkswagen AG, Audi and Porsche – and Volkswagen's U.S. subsidiary, VWGoA, have known that the defeat devices installed in the 2.0Ls and 3.0Ls they manufactured and that they sold in the United States, including in New York, 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.

180. 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.

181. At all material times, Volkswagen has been aware of the requirements of New York's environmental statutes and regulations more particularly described in this Complaint. For example, New York's environmental regulations at 6 NYCRR § 218-2.2(a) and § 200.9 required vehicle manufacturers to submit CARB Executive Orders certifying the new vehicles to the NYSDEC through model year 2013 prior to selling new vehicles in New York. As part of a rulemaking revision to § 218-2.2(a) in late 2012, vehicle manufacturers were no longer required to submit Executive Orders for 2014 and subsequent model years. These documents were publicly available from CARB and vehicle manufacturers were only required to submit them to

the NYSDEC upon request. Pursuant to Section 177 of the Clean Air Act, NYSDEC necessarily relied upon Volkswagen's submissions to CARB in determining compliance with NYSDEC regulations.

182. In addition, the Part 218 regulations require automobile manufacturers to comply with the Fleet Average Non-methane Organic Gas ("NMOG") or NMOG plus NO_x Exhaust Emission Requirement in New York. Previously, Part 218 required manufacturers to submit NMOG-only reports. Since at least 2009, Volkswagen has submitted annual NMOG Fleet Average Reports for its vehicles delivered for sale in New York to the NYSDEC. Since MY 2015, Volkswagen has submitted NMOG+ NO_x Fleet Average Reports for its vehicles delivered for sale in New York, as required by 6 NYCRR § 218-3.2. Because of the defeat devices in the Subject Vehicles, the reported 2009-2014 model year fleet averages (and any resulting NMOG credits/debits Defendants relied on) were based on false certification data provided to CARB; for MY 2015, the fleet average report Volkswagen submitted to the NYSDEC was similarly false.

183. Likewise, in order to obtain certification to sell the Subject Vehicles in the United States, Volkswagen submitted to the EPA and CARB applications for Emission Certification falsely certifying the Subject Vehicles' compliance with federal emissions and durability standards and California 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.

184. 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).

185. 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 non-compliant vehicles in New York in violation of 6 NYCRR Part 218.

K. Defendants Defrauded Consumers by Promising "Green" "Clean Diesel" Cars That in Fact Unlawfully Polluted the Air

186. At all relevant times, in an effort to spur sales in the United States, Volkswagen proudly touted the performance and reliability of its diesel vehicles and its purported environmental leadership, intentionally targeting its marketing to environmentally-conscious consumers.

187. From as early as 2007, internal documents relating to "Volkswagen's Opportunities with Clean Diesel" reflect Volkswagen's determination to "OWN the segment before the competition come to market" and "own 'Clean Diesel' the way Toyota owns

'Hybrid'." Volkswagen's marketing strategy focused on positioning "Clean Diesel as [an] environmental halo over [the] VW brand" and making "environmental conscience" the "centerpiece" of Volkswagen's "innovation/technology story."

188. Volkswagen's false advertising was effective: it helped it become by far the largest seller of diesel light-duty passenger vehicles in the United States. Volkswagen also sold approximately 11,000,000 of the Subject Vehicles in approximately 150 countries around the world. By 2015, Volkswagen became the world's largest automaker by sales, and by July of 2015 ranked eighth on the Fortune Global 500 list of the world's largest companies.

189. Even in the wake of the ICCT study in Spring 2014 and its own internal PEMS testing that confirmed the high real driving emissions in the 2.0Ls and 3.0Ls, and even as the regulators grew increasingly skeptical about the cars' emissions compliance, Volkswagen did nothing to modify or scale back its message of environmental leadership and the benefits of "Clean Diesel" in the United States.

190. At all relevant times, Defendant Volkswagen Group of America (VWGoA), including its AoA unit, were responsible for marketing and selling the Volkswagen and Audi brand Subject Vehicles, subject to coordination with and general oversight by Volkswagen AG and Audi AG.

191. From 2009 through 2015, VWGoA and AoA spent hundreds of millions of dollars to develop and place internet, television and print ads advertising the fuel efficiency, performance and environmental hygiene of the Subject Vehicles, to rebrand diesel as a clean-running, fuel-efficient, fun alternative to their gas and hybrid competitors and to associate the Volkswagen and Audi brands with progressive ideals, environmental consciousness and innovation.

192. Commercial videos lampooned as "old wives' tales" the notion that diesel was dirty and noxious. "[Diesel] used to be dirty," says one character, "but this is 2015." A character places her white scarf against the exhaust of a diesel and states, "see how clean it is!" The ad is followed by a statement, "Like really clean diesel." Exemplars are provided below.

193. As of March 30, 2015, Volkswagen's "Old Wives Tales" ad campaign alone – a media campaign aimed at debunking the myths that diesel cars were, among other things, sluggish, stinky and dirty – had gotten over 9.9 million views on Visible Measures True Reach, 13.5 million Tumblr impressions, and over 5 million Twitter impressions. Indeed, *within just 6 hours of posting*, the "Dirty" video alone got over 80,000 views.

194. In separate commercials, including during multiple Super Bowls, VWGoA and AoA touted the Volkswagen Jetta TDI and Audi A3 TDI as the "Green Car of the Year."

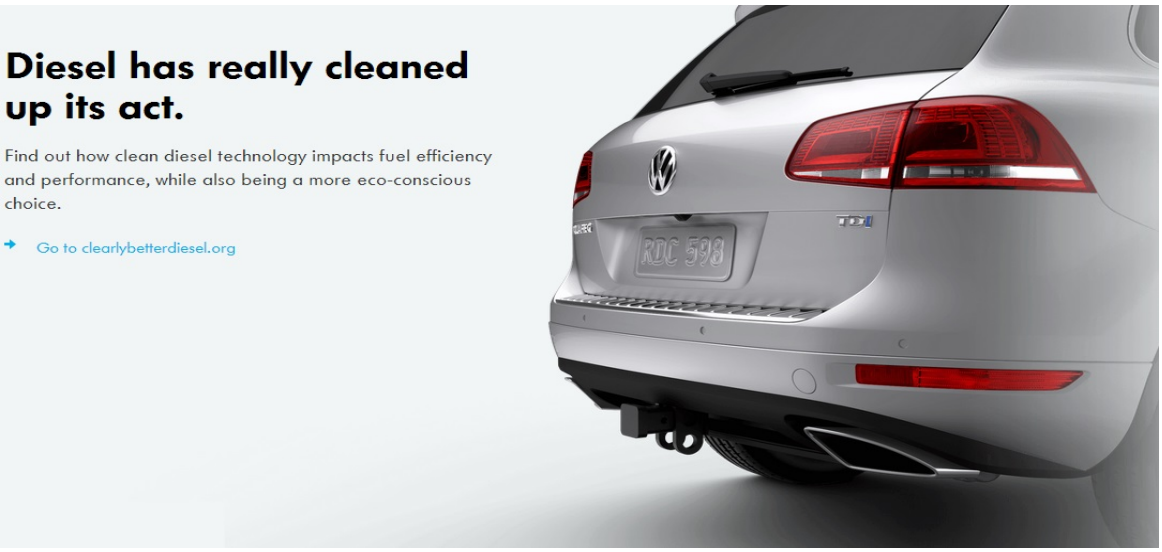
195. A 2010 AoA press release announcing the decision to advertise during the Super Bowl stated: "The spot will highlight the Audi A3 TDI, recently named by Green Car Journal as the 2010 "Green Car of the Year" and will have a fun, tongue-in-cheek environmental theme . . . This year, Audi will demonstrate its leadership position within the luxury segment with a brand spot that delivers the message that being environmentally conscious might not be easy, but the Audi A3 TDI clean diesel is now a proven environmental solution." Metrics from that Super Bowl ad reflect the commercial had 115.6 million viewers and was, at the time, the second most watched commercial in U.S. history.

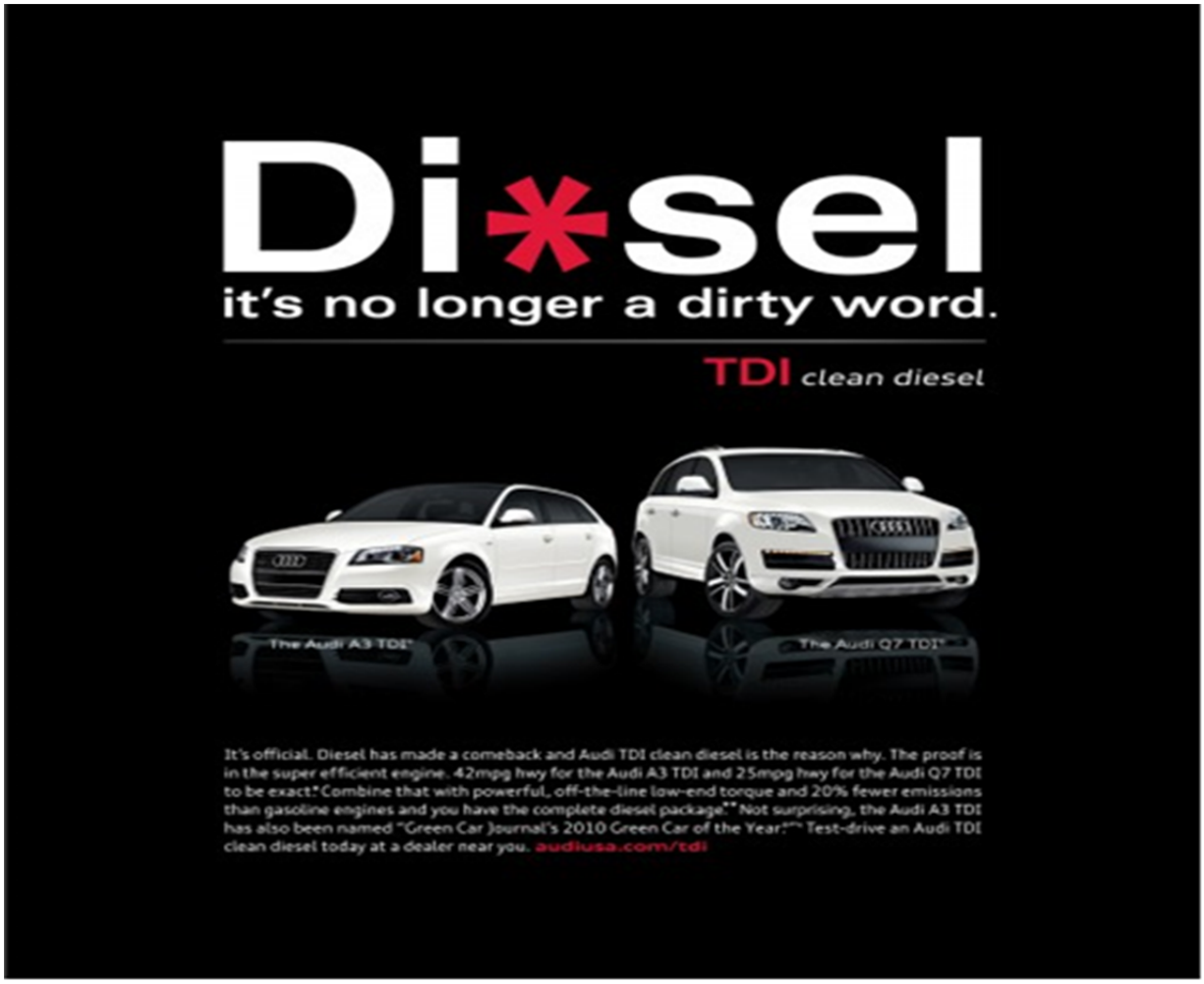
196. A commercial for the Audi A3 TDI urged consumers to "Do Your Part," and went on to depict the TDI engine as efficient, high performing, and therefore a "more fun" alternative to forms of green transportation such as cycling, bio-diesel, and public transit.

197. Press releases issued by VWoA and AoA concerning the Subject Vehicles were misleading as well, falsely touting the effectiveness of the emissions control systems. For example, an August 25, 2013 press release for the MY 2014 Touareg falsely claimed its Selective Catalytic Reduction system "helped reduce NO_x emissions by up to 90 percent. This lets the engine meet the Tier 2, Bin 5/ULEV II standards imposed across all 50 U.S. states."

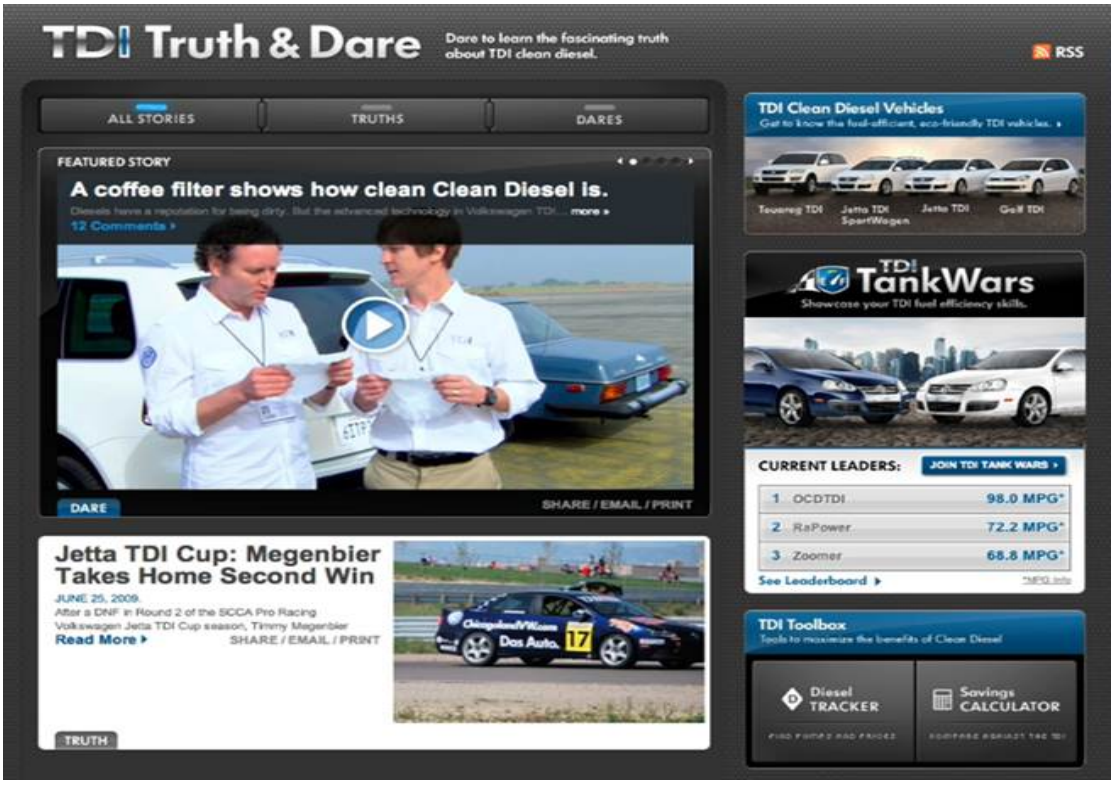
198. Marketing brochures likewise contained misstatements about the effectiveness of the emissions control systems. A brochure for the MY 2015 A3, for example, featuring Audi's slogan "Truth in Engineering" contained the following misleading claim about the A3's NO_x reduction technology: "[w]ith innovative diesel particulate filters and the nontoxic AdBlue reducing agent, we eliminate up to 95% of diesel NO_x emissions."

199. Print ads featuring tag-lines like “This ain’t your daddy’s diesel,” “Diesel has really cleaned up its act” and “Di*sel - it’s no longer a dirty word” (exemplars directly below) were similarly geared toward rebranding diesel as a clean and fun alternative to Volkswagen’s and Audi’s gasoline and hybrid competitors.

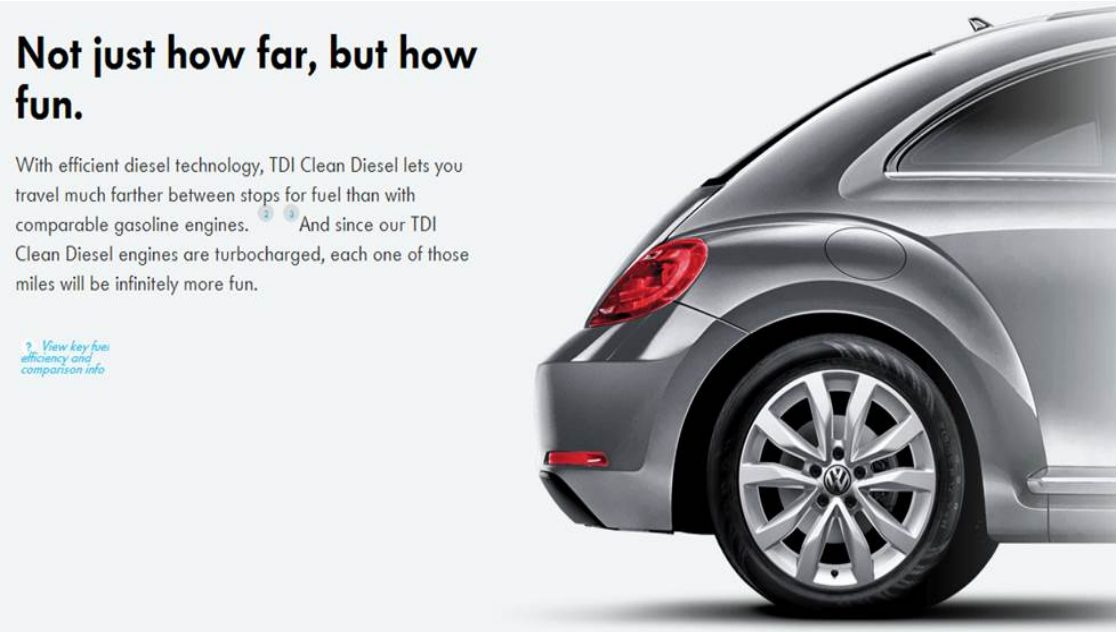




200. These ads directed consumers to promotional websites such as TDItruthanddare.com, launched by Volkswagen in March 2009, which included promotional ads, videos and interactive tools (exemplar below) dramatizing claims of TDI engines' cleanliness, or clearlybetterdiesel.org, which presented as an informational factsheet listing claims about the environmental, efficiency, and performance benefits of "Clean Diesel" engines.



201. Volkswagen and Audi ads uniformly promised consumers not only a "clean" car, but one that was higher performing, more "fun" to drive and more fuel efficient than non-diesel options.



202. Defendants also claimed in advertising that their Clean Diesel models typically have a higher resale value as compared to similar gasoline vehicles.

203. Defendants disseminated these advertisements and marketing materials throughout the United States, including in New York.

204. Similarly, defendant Porsche NA was responsible for marketing and selling the MY 2013 to MY 2016 Cayennes, subject to coordination with and general oversight by Porsche.

205. Porsche's literature for its first diesel-powered Porsche, the Cayenne Diesel, heavily touted its new, "clean" diesel technology that allowed for clean emissions while retaining the feel of a sports car.

206. A Porsche brochure for the Cayenne Diesel described the vehicle as a "technological marvel, able to take its unique fuel source and transform it into clean, efficient, and incredibly torque-rich power," further noting: "what is new" in the Cayenne "is the degree of refinement that Porsche has brought to it, making a new 3.0-liter turbo diesel V6 that is far advanced from what many people perceive – especially in terms of its acceleration, clean emissions, and quiet-running operation."

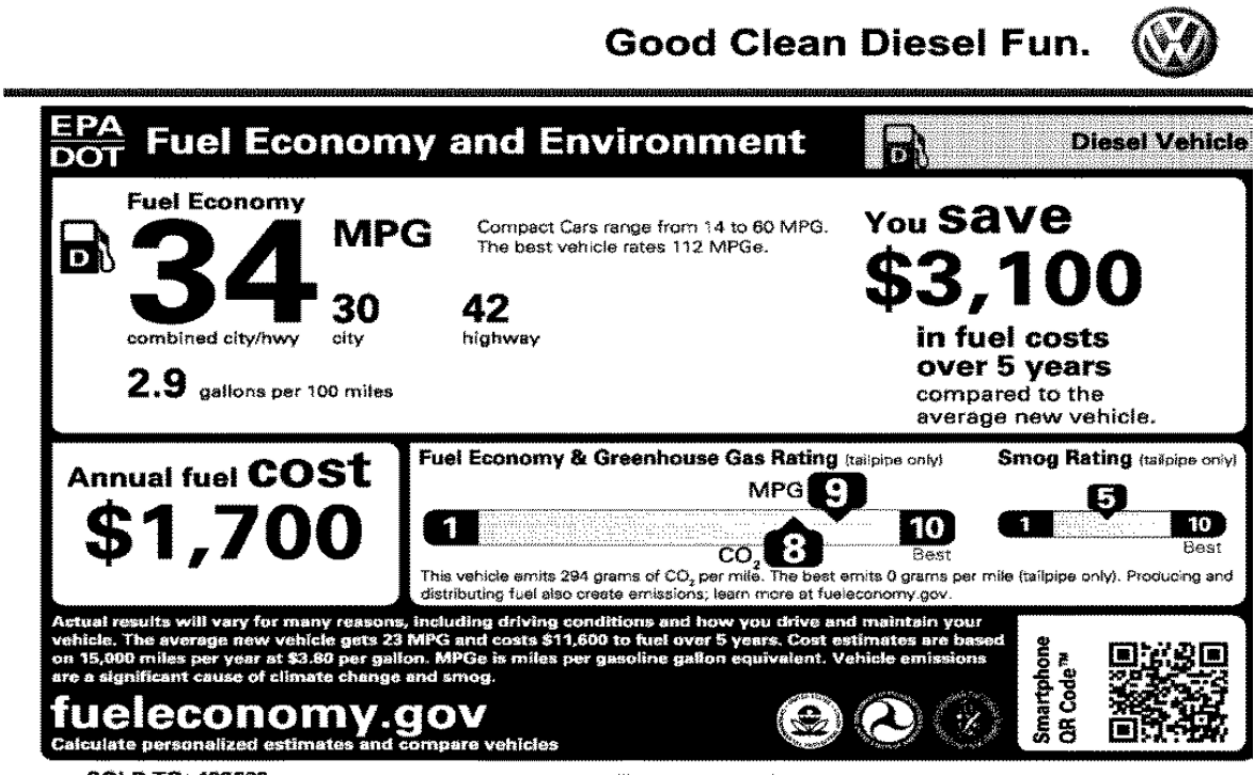
207. Porsche described the Cayenne's emission control system as "innovative" and "intelligent" and claimed, among other things, the Cayenne's Exhaust Gas Recirculation, Soot Filter, and Selective Reduction Catalytic Converter "help to ensure the reduction of harmful pollutants into the environment and make the Cayenne Diesel compliant with U.S. emissions standards."

208. These claims were false, deceptive and unfair because, in fact, as a result of the implementation of the defeat devices, the Cayennes were "compliant" with U.S. emissions standards only during dyno testing.

209. The brochures described above were made available to consumers in many parts of the United States, including in New York.

210. In addition to promoting sales through its misleading advertising campaigns, Volkswagen knowingly subjected actual and potential buyers and lessees to additional misrepresentations at the point of sale and after.

211. Window stickers affixed to each of the Subject Vehicles for sale or lease reflected average "smog ratings" when, in fact, the Subject Vehicles' NO_x emissions – a major factor in smog ratings – actually exceeded applicable standards by as much as forty times. For example, the representations below were affixed to the window of a 2013 Golf TDI:



212. In California emissions warranties, Defendants expressly warranted to each "original retail purchaser or originally lessee and any subsequent purchaser or lessee that every [Subject Vehicle] imported by Volkswagen . . . was designed, built and equipped" to conform

with applicable CARB requirements, and, therefore, ECL Article 19 and the New York's Low Emission Vehicle standards (LEV).

213. These express warranties were categorically false in light of the installation of the defeat devices.

214. Consumers purchased and leased Subject Vehicles based on Volkswagen's false and misleading representations that the vehicles would be environmentally friendly and clean, fuel-efficient, EPA-compliant, and would provide superior performance. Purchasers were willing to pay price premiums of thousands of dollars per car, depending on the model and trim packages.

215. Consumers later registered their anger and frustration about the fact that the Subject Vehicles they purchased and leased, far from containing the "clean" diesel engines with high performance that Volkswagen advertised and promised, grossly violate environmental emissions standards during normal operations and, depending on the remedial measures required to ensure compliance, are likely to see declines in performance.

216. One such consumer who registered a complaint with the NYAG wrote, "We purchased a VW diesel vehicle in 2009 for the fuel mileage, vehicle performance, and supposed clean emissions. We read positive reviews and ratings. We were shown how clean the engine was by the sales person placing clean material over the exhaust pipe, running the engine, and then showing us the material that showed no visible soiling. We felt we had purchased a vehicle that had good performance and was environmentally sound. We were purposely deceived. This is fraud."

217. Another consumer expressed his concern that "[f]ixing the TDI to meet standards will require considerable performance and mileage reductions. After these changes, this will not

be the car I thought I bought." A third consumer wrote to the NYAG that his two Volkswagen cars "are not what was advertised or what I thought I was buying" and that "the emissions systems being compromised makes these cars neither clean, green or what I purchased. I want a full refund of the price I paid in cash for these cars."

218. Two other New York consumers registered their distress at the thought that they were contributing to environmental harm, explaining that "it is confusing and upsetting to be driving a vehicle that promised to be one of the 'greenest' cars around, only to find out that may be utterly untrue" and that the "main concern is the amount of pollution my car is emitting. I am not willing to drive the car for a long period of time while VW attempts to correct the emissions problem."

219. A significant portion of owners purchased or leased a Volkswagen diesel because of its clean diesel and environmentally friendly promotions. Many, if not most, would not have purchased or leased the vehicles had Volkswagen accurately disclosed that the Volkswagen diesel vehicles failed to meet state and federal emissions and durability standards.

220. As a result of their deceptive and/or fraudulent business practices, and their failure to disclose that under normal operating conditions the Subject Vehicles emit up to forty times the allowed levels of NO_x pollution, Defendants sold Subject Vehicles that, based on initial estimates, have illegally emitted over 45,000 additional tons of NO_x emissions in the United States, often into economically disadvantaged communities adjoining highways whose residents are prone to asthma and other respiratory diseases that NO_x emissions exacerbate.

221. If Volkswagen had not concealed the true effect of the defeat devices on the operation of the "clean diesel" engine systems and the true levels of pollutants the engines emitted, it would not have been allowed to place the Subject Vehicles in New York for sale,

lease or use on our roadways, and New York and its residents would have avoided significant NO_x and related air pollution.

L. Previous Scandals and Penalties Have Failed to Deter Volkswagen From Engaging in Illegal Conduct to Advance its Own Interests

222. 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 cynical and repeated illegality. Time and again, when compliance with law proved too expensive or inconvenient, the company (including its luxury Audi line) decided to cheat; when threatened with disclosure, it chose to dissemble and deceive.

223. Nor is the conduct described in this Complaint Volkswagen's first brush with United States 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. Those controls and penalties were, however, insufficient to prevent the conduct complained of in this Complaint or affect the law-breaking culture giving rise to it.

224. In 1974, Volkswagen entered into a settlement with the EPA to resolve allegations it had gamed pollution control systems in four MY 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.

225. 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 CAA and EPA regulations.

226. More recently, in the winter of 1999-2000, Volkswagen began to receive numerous warranty claims on certain of its vehicles for cracked oxygen sensors. The sensors were gradually cracking on engine start-up in cool and damp environments due to thermal shock.

Eventually, the crack would cause the vehicle's "check engine" light to illuminate. A defective oxygen sensor would cause a vehicle to emit higher levels of non-methane hydrocarbons and carbon monoxide than allowed by federal emission standards. Volkswagen did not file an emissions defect information report with EPA until June 15, 2001, a month after EPA independently discovered the problem through a random surveillance test of a Volkswagen vehicle.

227. In June 2005, Volkswagen of America resolved this matter by entering into a Consent Decree with the EPA and 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 file an emissions defect information report with the EPA within 15 working days after an emission-related defect was found to affect 25 vehicles or engines of the same model year.

228. 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.

229. Defendants were also well aware that states -- such as New York -- had adopted the stringent California emission standards as state law pursuant to section 177 of the Clean Air Act. Indeed, in the early 1990s, after New York first adopted these standards, defendants VWGoA and Porsche joined other car manufacturers in filing lawsuits challenging New York's adoption. See, e.g., American Auto Mfrs. Ass'n, et al. v. Cahill, 152 F.3d 196 (2d Cir. 1998).

M. Attorney-Sanctioned Document Destruction in Germany and the Supervisory Board's Recent Award of €63 Million of Executive Compensation in the Wake of the Current Scandal Further Reflect the Broken Corporate Culture at Volkswagen

230. 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 at 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.

231. 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 the devices from the company's records. Some, but not all, of the data has been recovered.

232. 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.

233. 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.

234. Despite the failure of the Management Board to avert this debacle or to manage it in a way consistent with its legal obligations, they have not been 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.

235. In addressing the diesel scandal, the Annual Report stated that the Management Board members proposed, and the company accepted their offer, that 30 percent of each sitting Board member's 2015 performance-related compensation be withheld until April 2019, at which time the withheld portion would be paid if the company's stock price rises by then by at least 25 percent.

236. 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 approximately €112, near the post-scandal lows for Volkswagen stock and 30 percent 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 bonus compensation in full if Volkswagen's share price creeps up to as low as €140 by April 2019 – a figure still 13 percent lower than the stock's price the day before Volkswagen's emissions cheating was announced in September 2015.

237. Further, under their proposed compensation scheme, members of the Management Board would be able to double their withheld bonuses if the stock rises only a bit more in that timeframe, to €168. Put differently, to reach that double-bonus level, the Management Board members proposed, and the company accepted, that Volkswagen's share price rise by a paltry 3.5 percent in the three and a half years from September of last year to April of 2019.

238. 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.

239. 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.

240. As set forth in Volkswagen's April 2016 Annual Report, Mr. Winterkorn received €7.3 million in compensation last year, with all of it to be paid out by the end of this year and none of it 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.

241. As for Mr. Klingler – who as described above was one of those who contacted Volkswagen of America's EEO with concerns immediately following the release of the ICCT study – 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.

242. Volkswagen's Supervisory Board – consisting of representatives of the Porsche family that owns over 50 percent of the country's stock, as well as representatives from the state of Lower Saxony, Volkswagen's unions, a Swedish bank, and the Qatari sovereign wealth fund – has stated that it supports 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 and actions taken during the company's catastrophic 2015. At the Annual General Meeting of Volkswagen's shareholders held on June 22, 2016, Volkswagen's shareholders duly approved the Supervisory Board's recommendations. The resolution on the formal approval of the actions of the members of the Board of Management and the Supervisory Board for fiscal year 2015 was passed by 93.69 percent of the ordinary shareholders represented at the Meeting.

243. As supposed justification for its recommendation, the Supervisory Board purported to rely, but in a peculiar way, on the absence of incriminatory findings by Jones Day, the law firm it has hired to investigate the emissions scandal, and 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.

244. In issuing this statement, the Supervisory Board made clear that Jones Day's work is far from finished. 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 made despite the evidence, recounted above, that at least by Spring 2014, key Volkswagen executives were on notice of the cause of high NO_x emissions under real-world driving

conditions and did nothing to prevent both Audi and Volkswagen from repeatedly deceiving regulators, and the American public, for another 17 months.

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

245. 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 New York, 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.

246. 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.

247. 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.

V. REGULATORY SETTING

A. New York Environmental Laws Require Cars to Meet Strict Emissions Standards and Mandate Substantial Penalties for Violations

248. Pursuant to 42 U.S.C. § 7507, Section 177 of the Clean Air Act, New York has incorporated into state law and enforces under its sovereign powers automobile emission standards identical to those enacted in California, standards which are generally more stringent than those promulgated by EPA and enforced by the federal government in those states that have not chosen to incorporate and enforce California's standards. As a result, vehicles sold or registered in New York must meet these more stringent emissions standards, and violations of these emissions regulations are violations of New York law.

249. At all times relevant to the allegations in this Complaint, New York has incorporated the California automobile emissions standards, which are found at California Code of Regulations (CCR) title 13, sections § 1900 *et seq.*, into New York's Emissions Standards for Motor Vehicles and Motor Vehicle Engines regulations at 6 NYCRR §§ 200.9 and 218, promulgated under New York's ECL article 19. In this section of the ECL and in its underlying regulations and related statutes, New York has established a comprehensive regulatory scheme designed to prevent the release of pollution to the atmosphere by, among other things, controlling the amount of air contaminants, like NO_x, that are emitted from motor vehicles. Among the key provisions of these New York laws relevant to this case:

a. 6 NYCRR § 218-2.1(a) forbids any person from selling, registering, offering for sale or lease, importing, delivering, purchasing, renting, leasing, acquiring or receiving a

new or used motor vehicle that is not certified as meeting certain of California's emissions regulations (incorporated by reference at 6 NYCRR § 200.9), including:

i. 13 CCR §§ 1960.1, 1960.1.5, 1960.1(g)(2), 1961(b)(1), 1961, and 1961.2, which set forth limitations on the emissions of various air contaminants, including NO_x, from passenger vehicles and vehicle fleets.

ii. 13 CCR §§ 1968.1 and 1968.2, which set forth various requirements for the functioning of the OBD system on passenger vehicles.

b. 6 NYCRR § 218-11.1 makes it unlawful for any person to sell, register, offer for sale or lease, import, deliver, purchase, rent, lease acquire or receive a 2010 or subsequent model year passenger car in New York unless an environmental performance label has been affixed pursuant to the requirements of 13 CCR § 1965.

c. 6 NYCRR § 200.3 prohibits any person from making a false statement in connection with applications, plans, specifications or reports submitted pursuant to New York's air pollution regulations.

d. 6 NYCRR § 218-6.2 makes it unlawful for any person to disconnect, modify, or alter any air contaminant emission control system for motor vehicles required by the New York air pollution regulations, except when necessary to repair the vehicle. Additionally, this section requires the air contaminant emission control system on all motor vehicles in New York to be correctly installed and maintained in operating condition.

e. Pursuant to ECL § 19-0303 and New York Vehicle and Traffic Law § 301(a), motor vehicles in New York must be inspected annually for safety and at least biennially for air emissions compliance.

f. Vehicle & Traffic Law § 375.28-a forbids any person from removing, dismantling, or otherwise causing to be inoperative any equipment or feature constituting an operational element of a motor vehicle's air pollution control system or mechanism required by state or federal law or by any rules or regulations promulgated pursuant thereto.

g. Pursuant to Vehicle & Traffic Law Article 9, section 375.28-c, "[e]xcept where inconsistent with federal law, rules and regulations, every motor vehicle registered in the state and manufactured or assembled after June thirty, nineteen hundred sixty-seven and known as a nineteen hundred sixty-eight or subsequent model shall be equipped with an air contaminant emissions control system of a type approved by the state commissioner of environmental conservation."

h. 6 NYCRR § 211.1 more generally prohibits any person from "caus[ing] or allow[ing] emissions of air contaminants into the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property."

250. Further, ECL §§ 71-2103 and 71-2107 authorize civil penalties and injunctive relief for violations of New York's air pollution regulations. An initial violation is subject to a penalty of no less than $500 and no more than $18,000, plus $15,000 per day the violation continues. ECL § 71-2103(1). Subsequent violations are subject to penalties of up to $26,000, plus $22,500 per day the violation continues. *Id.* Vehicle and Traffic Law § 1800(b) directs that violations of that statute's provisions constitute a traffic infraction with attendant fines and other penalties.

251. The NYAG is authorized to recover penalties or seek injunctive relief to remedy violations of ECL article 19 and implementing regulations. ECL §§ 71-2103(2), 71-2107.

B. New York's Executive Law § 63(12) Prohibits Repeated or Persistent Fraud or Illegality in the Transaction of Business

252. Executive Law § 63(12) authorizes the Attorney General to bring a proceeding to enjoin repeated or persistent fraud or illegal conduct in the carrying on, conducting, or transaction of business.

253. "Illegal" conduct under Executive Law § 63(12) includes the violation of any state, federal, or local law or regulation.

254. Under Executive Law § 63(12), "repeated" fraud or illegality means the repetition of separate and distinct acts or conduct that affects more than one person, and "persistent" fraud or illegality means the continuance or carrying on of any fraudulent or illegal act or conduct.

255. Executive Law § 63(12) provides for injunctive relief, restitution, damages, disgorgement of profits, and other appropriate equitable relief.

256. In any action or proceeding pursuant to Executive Law § 63(12), pursuant to CPLR § 8303(a)(6), the Attorney General is entitled also to recover $2,000 against each defendant, whether or not other costs have been awarded.

VI. CAUSES OF ACTION

COUNT I

PURSUANT TO ECL §§ 71-2103 AND 71-2107 AND EXECUTIVE LAW § 63(12): VIOLATIONS OF NEW YORK STATE EMISSION STANDARDS AND ON-BOARD DIAGNOSTIC REQUIREMENTS

257. The State repeats and re-alleges paragraphs 1 through 256 as if fully set forth herein.

258. Pursuant to 6 NYCRR §§ 218-2.1 and 200.9, motor vehicles or motor vehicle engines may not be sold, registered, offered for sale or lease, imported, delivered, purchased, rented, leased, acquired, or received in New York unless they have been certified as complying with and actually comply with limitations on the emission of NO_x set forth in 13 CCR §§ 1961(b)(1) & 1961.2 and requirements for the proper functioning of the OBD set forth in 13 §§ CCR 1968.1 & 1968.2.

259. For each of the model years 2009 through 2016, Defendants' certifications were based on CARB Executive Orders certifying the Subject Vehicles' compliance with California Emissions Regulations. Those Executive Orders were invalid and/or fraudulently procured because they were based on fraudulent emissions data and information in which Defendants failed to disclose the existence of the defeat devices, in violation of 6 NYCRR §§ 218-2.1 & 200.9.

260. For each of the model years 2009 through 2016, Defendants sold, registered, offered for sale or lease, imported, delivered, purchased, rented, leased, acquired, or received in New York the Subject Vehicles, which exceeded the applicable emissions limitations for NO_x by as much as forty times, in violation of 6 NYCRR § 218-2.1 & 200.9.

261. For each of the model years 2009 through 2016, Defendants sold, registered, offered for sale or lease, imported, delivered, purchased, rented, leased, acquired, or received in New York the Subject Vehicles, which contained defeat devices that obviated the intended purpose of the OBD in violation of the various requirements for the functioning of the OBD on passenger vehicles as set forth in 13 CCR §§ 1968.1 and 1968.2, in violation of 6 NYCRR §§ 218-2.1 & 200.9.

262. By reason of the foregoing, Defendants have also engaged in repeated and persistent illegal conduct in violation of Executive Law § 63(12).

COUNT II

PURSUANT TO ECL §§ 71-2103 AND 71-2107 AND EXECUTIVE LAW § 63(12): VIOLATIONS OF PROHIBITION OF FALSE STATEMENTS IN EMISSIONS CERTIFICATION AND REPORTING

263. The State repeats and re-alleges paragraphs 1 through 256 as if fully set forth herein.

264. 6 NYCRR § 200.3 provides that no person shall make a false statement in connection with applications, plans, specifications, and/or reports submitted pursuant to New York's air pollution regulations.

265. 6 NYCRR § 218-2.1 requires that all new and used motor vehicles offered for sale or lease in New York be certified to state emission standards (including those incorporated by reference at 6 NYCRR § 200.9). For each of the model years 2009 through 2013, Defendants were required under 6 NYCRR § 218-2.4 to submit CARB Executive Orders to the NYSDEC that certified emissions control systems for the Subject Vehicles. Because NYSDEC relied on these Executive Orders and Defendants' submissions to California, which were false due to fraudulent emissions data and information Defendants submitted that failed to disclose the existence of the defeat devices, Defendants violated 6 NYCRR § 200.3 for model years 2009 through 2013.

266. Beginning in Model Year 2014, pursuant to a regulation change in 6 NYCRR § 218-2.2(a), NYSDEC relied solely on published CARB Executive Orders rather than requiring the Executive Orders to be separately submitted to NYSDEC, a fact Defendants knew or should have known. Because NYSDEC relied on these Executive Orders and Defendants' submissions

to California, which were false due to fraudulent emissions data and information Defendants submitted that failed to disclose the existence of the defeat devices, Defendants violated 6 NYCRR § 200.3 for model years 2014 through 2016.

267. Pursuant to 6 NYCRR §§ 218-3.1 and 200.9, the fleet average Non-methane Organic Gas ("NMOG") emission values from passenger cars produced and delivered for sale in New York by a manufacturer for each model-year must not exceed the limitations on NMOG emissions set forth in 13 CCR §§ 1961(b)(1) & 1961.2. 6 NYCRR § 218-3.2 requires each manufacturer to report to NYSDEC the average emissions of its fleet delivered for sale in New York.

268. For each of the model years 2009 through 2014, Defendants submitted to the NYSDEC Fleet Average Reports pursuant to 6 NYCRR § 218-3.2 that reported inaccurate fleet averages based on fraudulent certification data for the Subject Vehicles because of the use of the defeat devices, in violation of 6 NYCRR § 200.3.

269. For model year 2015, Defendants submitted to NYSDEC a NMOG+NO_x Fleet Average Report pursuant to 6 NYCRR § 218-3.2 that reported inaccurate NMOG+NO_x fleet averages based on fraudulent NO_x emissions data for the Subject Vehicles because of the use of the defeat devices, in violation of 6 NYCRR § 200.3.

270. By reason of the foregoing, Defendants have also engaged in repeated and persistent illegal conduct in violation of Executive Law § 63(12).

COUNT III

PURSUANT TO ECL §§ 71-2103 AND 71-2107 AND EXECUTIVE LAW § 63(12): VIOLATIONS OF NEW YORK STATE ENVIRONMENTAL PERFORMANCE LABEL REQUIREMENTS

271. The State repeats and re-alleges paragraphs 1 through 256 as if fully set forth herein.

272. Pursuant to 6 NYCRR §§ 218-11.1 & 200.9, it is unlawful for any person to sell, register, offer for sale or lease, import, deliver, purchase, rent, lease, acquire or receive a 2010 or subsequent model year passenger car in New York unless an environmental performance label has been affixed pursuant to 13 CCR § 1965.

273. By producing cars for certification that contained defeat devices designed to render inoperative or otherwise alter the emissions control system in each Subject Vehicle for model years 2010-16, Defendants fraudulently obtained environmental performance labels pursuant to 13 CCR § 1965.

274. Accordingly, each Subject Vehicle for model years 2010 and later was sold, registered, offered for sale or lease, imported, delivered, purchased, rented, leased, acquired or received in New York without a valid environmental performance label, in violation of 6 NYCRR §§ 218-11.1 and 200.9.

275. By reason of the foregoing, Defendants have also engaged in repeated and persistent illegal conduct in violation of Executive Law § 63(12).

COUNT IV

PURSUANT TO ECL §§ 71-2103 AND 71-2107 AND EXECUTIVE LAW § 63(12): VIOLATIONS OF NEW YORK STATE LAWS PROHIBITING USE OF DEFEAT DEVICES

276. The State repeats and re-alleges paragraphs 1 through 256 as if fully set forth herein.

277. Pursuant to 6 NYCRR § 218-6.2, no person shall disconnect, modify, or alter any air containment emission control system required by New York air pollution regulations, except as necessary to repair the vehicle.

278. Similarly, New York State Vehicle and Traffic Law, Article 9, section 375.28-a prohibits causing a motor vehicle's air pollution control system required under state law to be rendered inoperative and section 375.28-c prohibits failing to maintain such system in good working order in continued conformity with state emission standards.

279. By installing and using a defeat device on each of the Subject Vehicles to cause the emissions control system of that Subject Vehicle to be disconnected, modified, or rendered inoperative, Defendants violated, or caused or allowed the violation of, 6 NYCRR § 218-6.2 and Vehicle & Traffic Law Article 9, section 375.28-a with respect to each of the Subject Vehicles for model years 2009 through 2016.

280. By installing a defeat device on each of the Subject Vehicles to subvert the intended purpose of the OBD in normal, non-emissions test operating conditions, and by providing the Subject Vehicles to dealers for sale or lease to customers, Defendants caused the operation of the Subject Vehicles for model years 2009 through 2016 in such a manner that subverts the intended purpose of the OBD in violation of the Vehicle & Traffic Law, the ECL and 6 NYCRR Parts 200 and 218.

281. By installing a defeat device on each of the Subject Vehicles for the model years 2009 through 2016 that prevented the installed air pollution control systems from operating in continued conformity with state emission standards, Defendants violated Vehicle & Traffic Law § 375.28-c.

282. By reason of the foregoing, Defendants have engaged in repeated and persistent illegal conduct in violation of Executive Law § 63(12).

COUNT V

PURSUANT TO ECL §§ 71-2103 AND 71-2107 AND EXECUTIVE LAW § 63(12): VIOLATIONS OF NEW YORK STATE LAW PROHIBITING EMISSIONS THAT UNREASONABLY INTERFERE WITH THE COMFORTABLE ENJOYMENT OF LIFE OR PROPERTY

283. The State repeats and re-alleges paragraphs 1 through 256 as if fully set forth herein.

284. By offering for sale or lease in New York the Subject Vehicles that emit NOx in excess of state emission standards as codified in 6 NYCRR §§ 218-2.1 & 200.9, Defendants have "caus[ed] or allow[ed] emissions of air contaminants into the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property" throughout New York, in violation of 6 NYCRR § 211.1.

285. Excess NO_x, ozone, and particulate matter are present throughout New York as a result of Defendants' actions, and illegal and harmful pollution continues to be emitted into New York's environment from the Subject Vehicles. NO_x in the atmosphere can lead to the formation of ozone and particulate matter, which are serious problems in New York and harmful to its residents' health.

286. As a direct and proximate result of Defendants' conduct, excess NO_x, ozone, and particulate matter are present throughout New York, and are continuing to be emitted into the environment.

287. As a direct and proximate result of Defendants' conduct, large numbers of people throughout New York have been exposed and/or will continue to be exposed to excess NO_x, ozone, and particulate matter, thereby affecting the health, safety, and welfare of each person.

288. By reason of the foregoing, Defendants have also engaged in repeated and persistent illegal conduct in violation of Executive Law § 63(12).

VII. PRAYER FOR RELIEF

WHEREFORE, the State requests that this Court, after adjudication on the merits, grant the following relief:

A. Order Defendants to pay to New York pursuant to ECL § 71-2103(1), for violations of 6 NYCRR §§ 200.3, 200.9, 211.1, 218-2.1, 218-6.2, and 218-11.1, civil penalties in the amount of $18,000 for the first violation, plus $15,000 per day the violation continued, and in the amount of $26,000 for each subsequent violation, and $22,500 per day the violation continued, and pursuant to Vehicle & Traffic Law § 1800(b)(1), for violations of Vehicle & Traffic Law §§ 375.28-a and 375.28-c, a fine in the amount of $150 for the first violation, $300 for the second violation, and $450 for each subsequent violation;

B. Enter an order pursuant to ECL §§ 71-2103 and 71-2107 and Executive Law § 63(12) permanently enjoining Defendants from:

i. Selling, offering for sale, introducing into commerce, or delivering for introduction into commerce into New York 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 New York;

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 New York; and

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

C. Enter an order pursuant to ECL §§ 71-2103 and 71-2107 and Executive Law § 63(12) requiring Defendants to abate and mitigate their emissions of NOx and other pollutants emitted in excess of applicable emission standards;

D. Enter an order pursuant to ECL §§ 71-2103 and 71-2107 and Executive Law § 63(12) requiring Defendants to submit to a third-party monitor overseen by the Court to ensure Defendants' future compliance with emissions and environmental standards in New York;

E. Award Plaintiffs costs plus an additional allowance of $2,000 against each Defendant pursuant to CPLR § 8303(a)(6); and

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

Albany, NY
July 19, 2016

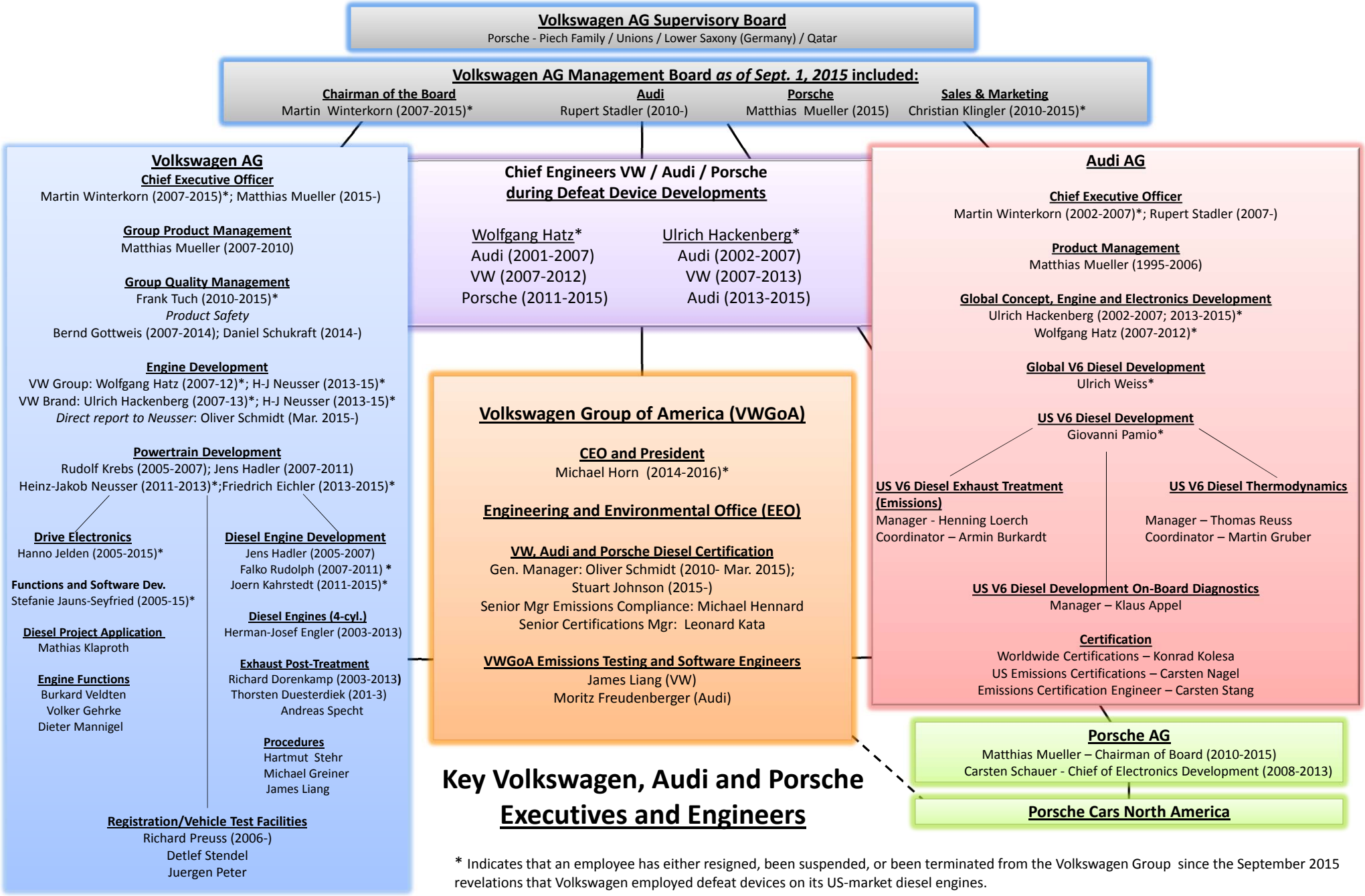
Respectfully submitted,
ERIC T. SCHNEIDERMAN
Attorney General of New York
Attorney for Plaintiffs

By: _____

DAVID E. NACHMAN
Senior Enforcement Counsel
DAVID N. ELLENHORN
Senior Trial Counsel
NOAH POPP
Assistant Attorney General
120 Broadway
New York, New York 10271
(212) 416-8000

LISA M. BURIANEK
Deputy Bureau Chief
MICHAEL J. MYERS
Chief, Affirmative Litigation Section
MORGAN A. COSTELLO
BRIAN M. LUSIGNAN
JOHN TURRETTINI
Assistant Attorneys General
Environmental Protection Bureau
The Capitol
Albany, NY 12224
(518) 776-2400

APPENDIX



* Indicates that an employee has either resigned, been suspended, or been terminated from the Volkswagen Group since the September 2015 revelations that Volkswagen employed defeat devices on its US-market diesel engines.