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15	UNITED STATES D	DISTRICT COURT
16	NORTHERN DISTRIC	CT OF CALIFORNIA
17	IN RE: VOLKSWAGEN "CLEAN DIESEL"	
18	MARKETING, SALES PRACTICES, AND PRODUCTS LIABILITY LITIGATION	MDL No. 2672 CRB (JSC)
19	/ LINGS CONTROLLED FOR THE PROPERTY OF THE PRO	CLASS ACTION
20	This Document Relates To:	FIRST AMENDED CONSOLIDATED
21	City of St. Clair Shores, 15-1228 (E.D. Va.)	SECURITIES CLASS ACTION
22	Travalio, 15-7157 (D.N.J.) George Leon Family Trust, 15-7283 (D.N.J.)	COMPLAINT
23	Charter Twp. of Clinton, 15-13999 (E.D. Mich.)	Judge: Hon. Charles R. Breyer Courtroom: 6, 17th Floor
24	Wolfenbarger, 15-326 (E.D. Tenn.)	Courtiooni. 0, 17th 1 1001
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	FIRST AMENDED CONSOLIDATED SECURITIES CLA	ASS ACTION COMPLAINT

MDL No. 2672 CRB (JSC)

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#### PRELIMINARIES

- 1. Court-appointed Lead Plaintiff Arkansas State Highway Employees' Retirement System ("ASHERS" or "Lead Plaintiff"), together with named plaintiff Miami Police Relief and Pension Fund ("Miami Police") (collectively, "Plaintiffs"), by their undersigned counsel, allege the following upon personal knowledge as to themselves and their own acts, and upon information and belief as to all other matters.
- 2. Plaintiffs' information and belief as to allegations concerning matters other than themselves and their own acts are based upon, among other things: (1) review and analysis of documents filed publicly by Volkswagen Aktiengesellschaft ("VW AG" or the "Company") with government regulators; (2) press releases and other public statements issued by VW AG, Volkswagen Group of America, Inc. ("VWGoA"), Volkswagen Group of America, Inc. d/b/a Volkswagen of America, Inc. ("VWoA"), and Audi of America, Inc. ("AoA"); (3) transcripts of VW AG investor conference calls; (3) VW AG, VWGoA, VWoA, and AoA advertisements and marketing materials; (4) research reports concerning VW AG by financial analysts; (5) information from government and regulatory investigations into VW AG and its subsidiaries and divisions; (6) news reports and other publicly available sources of information concerning VW AG, VWGoA, VWoA, and AoA; (7) complaints filed against VW AG, VWGoA, VWoA, and AoA in this consolidated proceeding, including the Consolidated Consumer Class Action Complaint (ECF No. 1230), Consolidated Amended Reseller Dealership Class Action Complaint (ECF No. 1231), and Consolidated Amended Competitor Dealership Class Action Complaint (ECF No. 1232), as well as the complaints filed in *United States v. Volkswagen AG*, 16-cv-00295-CRB (N.D. Cal. filed Jan. 4, 2016), Federal Trade Commission v. Volkswagen Group of America, Inc., 16-cv-1534 (N.D. Cal. filed Mar. 29, 2016), and related complaints filed by several State Attorneys General and private plaintiffs; (8) the criminal plea agreements between the United States and VW AG and between the United States and James Robert Liang; (9) the Second Superseding Indictment ("SSI") the United States filed against Richard Dorenkamp, Heinz-Jakob Neußer, Jens Hadler, Bernd Gottweis, Oliver Schmidt, and Jürgen Peter; (10) other related documents filed in *United States v*.

Liang, No. 2:16-cr-20394-SFC-APP (E.D. Mich.); and (11) the Criminal Complaint filed against Oliver Schmidt in *United States v. Schmidt*, 2:16-mj-30588-DUTY (E.D. Mich. filed Dec. 30, 2016).

- 3. Lead Counsel's investigation into the factual allegations contained herein is continuing, and many of the relevant facts are known only by the Defendants or are exclusively within their custody or control. Lead Plaintiff believes that substantial additional evidentiary support will exist for the allegations set forth herein after a reasonable opportunity for further investigation or discovery.
- 4. At times and when appropriate, this Complaint refers to the corporate defendants collectively as "Volkswagen" "or VW" given the unity in which the entities operated. Materials referenced below originally published in German have been translated by Lead Counsel. Throughout this Complaint, all emphasis is added unless otherwise indicated.
- 5. A glossary of defined and key terms, entities, and individuals is attached to this Complaint, beginning at page A-1.

#### II. INTRODUCTION

- 6. This is a federal securities class action brought by Plaintiffs, ASHERS and Miami Police, individually and on behalf of a proposed class consisting of all persons and entities who purchased or otherwise acquired Volkswagen Ordinary Share American Depositary Receipts ("ADRs") (Ticker: VLKPY; CUSIP: 928662303) and Volkswagen Preference Share ADRs (Ticker: VLKAY; CUSIP: 928662402) from November 19, 2010 through January 4, 2016, inclusive (the "Class Period").
- 7. This case is about an audacious, intentional fraud orchestrated by Volkswagen's former CEO, Martin Winterkorn, his closest confidants, and other of the Company's most senior executives. Motivated by greed and ambition, Winterkorn and the other Defendants repeatedly lied to investors, consumers and regulators, and endangered the environment and the public health by installing "defeat devices" in Volkswagen's purportedly "clean diesel" cars. Those **defeat devices**, installed in 11 million vehicles, including approximately 585,000 sold in the United States, had no

legal or proper function; **their sole purpose and design was to cheat.** The adverse effects of that cheating – on the environment, on the cars' owners and drivers, and most critically for this case, on Volkswagen and its investors – have been tremendous.

- 8. Volkswagen, its subsidiaries, and its executives repeatedly lied, made misleading statements, and omitted material information during the Class Period when they reported financial results that were inflated by at least \$18 billion. The Company also defrauded investors by consistently assuring them that Volkswagen's diesel cars met all applicable emissions standards, including those in all 50 states of the United States and in the European Union. Despite Defendants' repeated statements concerning the importance of their diesel program to Volkswagen's growth and their purported fealty to "environmental friendliness," they cynically engaged in a years-long scheme of deception and pollution. Beginning in September 2015 the admissions and revelations concerning Volkswagen's emissions scandal became public and investors saw \$63 billion of the Company's market capitalization destroyed.
- 9. Liability here is clear. There can be no dispute that Volkswagen cheated, or that the Company's senior executives knew about it. In fact, Defendants have already made remarkable admissions concerning the "Dieselgate" fraud, including:
  - Volkswagen admitted in September 2015 to the California Air Resources Board ("CARB") that its diesel cars "were designed and manufactured with a defeat device to bypass, defeat, or render inoperative elements of the vehicles' emissions control system."
  - Defendant Martin Winterkorn ("Winterkorn"), Volkswagen's former CEO, said that he was "endlessly sorry" and that the Company had broken the "trust" that "millions of people across the world" had in "our brands, our cars, and our technology."
  - Defendant Michael Horn ("Horn"), until recently VWGoA's President and CEO, said that "our company was dishonest. With the EPA, and the California Air Resources Board, with all of you. And in my German words, we have totally screwed up."
- 10. On January 11, 2017, VW AG pleaded guilty to criminal and civil charges of conspiracy to commit wire fraud and to violate the Clean Air Act, importing cars by means of false

statements, and obstruction of justice for its role in orchestrating the emissions-cheating scandal. To resolve the charges, VW AG agreed to pay \$4.3 billion in penalties—one of the largest such penalties in history. In addition, federal prosecutors announced similar criminal charges against six VW AG executives—Richard Dorenkamp, Heinz-Jakob Neußer, Jens Hadler, Bernd Gottweis, Oliver Schmidt, and Jürgen Peter—for their roles in the scheme. One of those executives, Oliver Schmidt—a top emissions compliance manager for Volkswagen in the United States—was arrested in Florida on a charge of conspiracy to defraud the United States. The five other executives reportedly reside in Germany and have been advised not to travel to the United States. These criminal charges are in addition to the criminal plea agreement that James Robert Liang—another former top VW AG engineer—entered into in September 2016 for lying to US regulators and the public regarding Volkswagen's "clean diesel" cars.

"admits, agrees, and stipulates that the factual allegations set forth in . . . the Statement of Facts [attached to the plea agreement and attached as Exhibit 1 to this Complaint (the "SOF")] are true and correct, that it is responsible under the laws of the United States for the acts of its employees described in [the SOF], and that the facts set forth in [the SOF] accurately reflect [VW AG]'s criminal conduct and provide a factual basis for the guilty plea. [VW AG] agrees that it will neither contest the admissibility of, nor contradict, the Statement of Facts contained in Exhibit [1 to this Complaint] in any proceeding." (*United States v. Volkswagen AG*, Rule 11 Plea Agreement ¶1.E, No. 16-CR-20394 (E.D. Mich. filed Jan. 11, 2017).) In the SOF itself, "VW AG admits, accepts, and acknowledges that under U.S. law it is responsible for the acts of its employees as set forth in [the] Statement of Facts, which acts VW AG acknowledges were within the scope of the employees' employment and, at least in part, for the benefit of VW AG." (SOF, p. 2-1.) VW AG further admits in the SOF that from approximately May 2006 to approximately November 2015, through six "Supervisors A-F and other VW employees":

- "VW AG... agreed to deceive U.S. regulators and U.S. customers about whether the Subject Vehicles and the Porsche Vehicles complied with U.S. emissions standards." (SOF ¶31.)
- "Supervisors A-F and other VW employees . . . knew that the Subject Vehicles and the Porsche Vehicles did not meet U.S. emissions standards . . . " (*Id.*)
- "Supervisors A-F and other VW employees: . . . knew that VW was using software to cheat the U.S. testing process by making it appear as if the Subject Vehicles and the Porsche Vehicles met U.S. emissions standards when, in fact, they did not . . . ." (*Id.*)
- "Supervisors A-F and other VW employees . . . attempted to and did conceal these facts from U.S. regulators and U.S. customers." (*Id*.)<sup>1</sup>
- 12. These admissions and reversals stand in stark contrast with the steady drumbeat of statements by Volkswagen and its US subsidiaries before and throughout the Class Period. In every single one of VW AG's periodic reports to investors during the Class Period—reports that were signed by Winterkorn and/or Diess—it reported grossly inflated financial results including inflated profits and assets that failed to account for liabilities it was required to accrue and, similarly, inflated the residual value of the affected leased vehicles that Volkswagen would own at the end of customers' leases. The Volkswagen entities put out countless statements flatly misrepresenting that their diesel vehicles met the "emissions standards that apply in California and all 50 U.S. states." The Company's statements also boldly and repeatedly misrepresented that "the decisive advantages for the Volkswagen Group" included "its environmentally friendly model range."
- 13. In addition, Winterkorn also personally misled the market numerous times during the Class Period by declaring, among other things, that it was his aim "to make the Volkswagen Group the leading automaker by 2018—economically and ecologically."
- 14. Winterkorn himself is at the center of this story, beginning with Volkswagen's introduction of the "defeat device" software in the Company's MY 2009 2.0 liter diesel cars. In its development of that engine, Volkswagen was caught between Winterkorn's goal of becoming the

<sup>&</sup>lt;sup>1</sup> "VW" is defined in the admitted Statement of Facts to refer collectively to VW AG, Audi AG, and Volkswagen Group of America, Inc. (SOF ¶4.)

largest automaker in the world (his "Strategy 2018"), which the Company hoped to achieve by selling more diesel vehicles (particularly in the United States), and the engineering realities of diesel engines and emissions standards. While its diesel engines promised better on-road performance, Volkswagen struggled to design engines that could meet governing emissions standards for nitrogen oxides ("NOx"). The marketing of these cars would focus on their ability to deliver huge environmental benefits without needing to compromise on performance. In Volkswagen parlance, these "clean diesel" cars would catapult Volkswagen to become the largest carmaker in the world.

- 15. However, Volkswagen's engineers were unable to produce diesel engines that provided the uncompromising performance and environmental friendliness that the Company's marketers sought. VW AG has admitted that "Supervisors B, C, and F, and others, . . . realized that VW could not design a diesel engine that would both meet the stricter U.S. NOx emissions standards that would become effective in 2007 and attract sufficient customer demand in the U.S. market." (SOF ¶33.) Defendant Winterkorn, a manager known for his acute attention to detail and engineering background, empowered two of his long-trusted and closest lieutenants, Ulrich Hackenberg ("Hackenberg") and Wolfgang Hatz ("Hatz"), to come up with a solution. That solution became the "defeat device"—lines of software code that caused the vehicles to operate in "dyno calibration" mode when they detected an emissions test. While operating in "dyno calibration" mode, the emissions-control system functioned at full capacity, but substantially reduced the engine's performance. However, during normal on-road vehicle operation, the cars operated in a "road calibration" mode that produced full power and torque, but reduced the effectiveness of the emissions-control system. This "solution" allowed the cars to meet Volkswagen's performance goals while cheating the emissions-testing process (in "dyno" mode) to create the impression that they met the applicable limits, enabling Volkswagen to secure necessary regulatory certifications.
- 16. The deception here was profound: not only did the cars emit NOx at up to 40 times the legal limit, but the defeat device code is itself illegal and cars with defeat devices cannot be

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legally sold. Nor can the environmental effects, and ensuing liability, be understated. NOx emissions are the principal component of smog, and cause adverse health effects that include chest pain, exacerbation of bronchitis, emphysema, asthma, and premature death. Defendants cast aside any concern for the general public or their own customers and left their shareholders to suffer losses as a result of the billions of dollars in liability that Volkswagen has already incurred. In fact, Volkswagen viewed emissions regulations as a nuisance that took away the "pleasure" of driving, and was notably resistant to even trying to meet US standards. For example, in 2007 Hatz dismissively said during a presentation that the CARB emissions standards were "not realistic" and were "nearly impossible" to meet.

- 17. Volkswagen continued to sell, market, and make misrepresentations concerning the affected diesel vehicles throughout the Class Period, even after people both inside and outside Volkswagen raised concerns to the Company's senior management reinforcing that the defeat devices were being used to illegally game the regulatory emissions process. An internal VW AG presentation from 2006 outlined to senior executives how Volkswagen could cheat on emissions tests, because VW AG executives already knew it would be impossible to economically produce cars that met emissions standards. Robert Bosch GmbH ("Bosch"), the supplier of the defeat-device code, warned Volkswagen's most senior executives in 2007 that the software was illegal. In 2011, an internal whistleblower alerted Winterkorn confidant and senior VW AG executive Neuβer (who has since been criminally indicted) to the illegal manipulation of emissions data through the use of defeat devices. And both Winterkorn and Horn received written memos concerning the defeat devices and regulatory scrutiny in 2014.
- 18. Significantly, at least one of the memos Winterkorn received was from Gottweis, Volkswagen's so-called "fireman," whose job was to "sound the alarm" when crises emerged. Gottweis was the head of "the Product Safety Committee (GSP), one of the most important bodies at Volkswagen," and was a "longstanding confidant" of Winterkorn.<sup>2</sup> Nevertheless, Winterkorn

<sup>&</sup>lt;sup>2</sup> Süddeutsche Zeitung, "Ermittler filzen Villa von Winterkorn," Jan. 27, 2017. See also Der Tagesspiegel, "Martin Winterkorn in Erklärungsnot," Jan. 15, 2017 (calling Gottweis a "formerly

and the rest of the Management Board routinely rebuffed employees' concerns regarding the misconduct because the Board believed that Volkswagen could out-wit or manage regulators, and knew that complying with emissions rules would make Winterkorn's Strategy 2018 impossible.

- 19. In addition, Winterkorn and Horn's knowledge of the fraud is consistent with the fact that they—particularly Winterkorn—are known to have taken advantage of Volkswagen's crippled corporate-governance structure, where there is little ability to question bosses or hold them accountable to those outside the organization. A member of VW AG's Supervisory Board admitted that the emissions scandal arose out of a "tolerance for breaking the rules." VW AG's governance structure, combined with its toxic corporate culture, led by the notably mercurial and obsessive micromanager Winterkorn, created an environment where this fraud could be fostered and allowed to fester. Winterkorn's fingerprints, through his close relationships with Hatz, Hackenberg, Gottweis, and Neuβer, and his desire to check every detail of his vehicles' design and manufacture, are all over Defendants' fraudulent scheme. Indeed, after commissioning the Jones Day law firm to conduct an investigation into the scandal, Volkswagen abruptly reversed course upon reviewing the findings, and refused to release results, citing "unacceptable risks for Volkswagen."
- 20. Defendants' disregard for both investors and regulators is also reflected in how wantonly Volkswagen tried to cover its tracks. As discussed below, Volkswagen has now admitted that senior executives actively engaged in document destruction. There are multiple reports that the very lawyer who was responsible for preserving the documents related to the emissions scandal directed employees to destroy relevant materials immediately before issuing the communication to preserve them.

close confidant of former CEO Martin Winterkorn" and the "former head of the product safety committee (GSP), one of the most important committees at Volkswagen"); *New York Times*, "Volkswagen Memos Suggest Company Misled U.S. Regulators," Feb. 18, 2016 (calling Gottweis "a confidant of Mr. Winterkorn").

- 21. Even more to that point, in May 2014, US regulators were alerted to a study commissioned by the International Council on Clean Transportation ("ICCT") and conducted by West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU"). The WVU study indicated during road tests that Volkswagen's "clean diesel" vehicles' NOx emissions were up to 40 times greater than the legal limit. After learning of these results, the regulators asked Volkswagen to investigate the causes.
- 22. To give the appearance of cooperation, in December 2014, Volkswagen agreed to perform a recall to purportedly adjust the diesel cars' emissions output. But instead of admitting to the use of defeat devices, Volkswagen took the remarkable step of refining the defeat device software to improve its ability to detect whether the car was being driven on the road or being tested on a dynamometer. It told the public and the regulators that the recall would simply improve the cars' "engine management software."
- 23. But the regulators were not satisfied and continued to press Volkswagen about why the cars' emissions remained above legal limits. Ultimately, in September 2015, Volkswagen admitted to the US Environmental Protection Agency ("EPA") and CARB that the subject 2.0 liter vehicles had used illegal defeat devices. On Friday, September 18, 2015, both the EPA and CARB issued public letters indicating that Volkswagen admitted to systematically defrauding investors and the public for years by deliberately cheating US emissions tests and making its diesel vehicles appear cleaner than they actually were. Experts immediately estimated that Volkswagen could face up to \$18 billion in penalties under the Clean Air Act alone.
- 24. As further evidence of its scienter, VW AG has since admitted that in August and September 2015, VW AG and Audi AG employees destroyed documents and files related to US emissions issues that they believed would be covered by an upcoming litigation hold. VW AG employees also requested that their counterparts at "Company A" (Bosch) destroy sensitive documents related to US emissions issues. VW AG has also admitted that the employees who participated in this document destruction did so to protect both VW and themselves from the legal consequences of their actions. Within VW AG and Audi AG, thousands of documents were deleted

by approximately 40 VW AG and Audi AG employees, including by high-level VW AG executives. (SOF ¶ 73-81.)

- 25. On Sunday, September 20, 2015, Winterkorn made the admission quoted above, and Volkswagen announced that it would stop selling certain of the "clean diesel" cars in the US; Deutsche Bank issued an analyst report stating that "this appears to be intentional cheating." Then, on Monday, September 21, 2015 the US Department of Justice ("DoJ"), the US House of Representatives, and the German government all initiated investigations into Volkswagen's defeat device admission. The bad news continued on September 22, 2015, when Volkswagen revealed that as many as 11 million vehicles worldwide contained defeat devices used to evade emissions tests and that the Company would take a \$7.3 billion charge to earnings in connection with the scandal.
- 26. In the trading days following these revelations of Volkswagen's emissions scandal, the price of Volkswagen's securities dropped precipitously—its ordinary shares (including ADRs) suffered a market capitalization decline of over €23 billion, and its preference shares (including ADRs) suffered a €9.5 billion loss of market capitalization.
- 27. The fallout from Defendants' admissions continued and has been severe. To date, investigations and lawsuits, including criminal inquiries, have been launched by the DoJ, the US Federal Trade Commission ("FTC"), the EPA, CARB, multiple state attorneys general, various foreign governments, and consumers, car dealers, and car manufacturers. Indeed, the Company recently pleaded guilty and paid \$4.3 billion to resolve US criminal and civil charges arising out of false statements VW AG made concerning its "clean diesel" cars. Volkswagen has replaced virtually all of its prior management, firing or suspending at least 11 of its senior executives, including Winterkorn, Horn, Hatz, Hackenberg, and Neuβer.

- 28. These further disclosures have decimated the value of Volkswagen's securities. As noted above, all told, the revelation of Defendants' fraud has erased \$63 billion from Volkswagen's market capitalization.<sup>3</sup>
- As the market had come to expect, when VW AG belatedly issued its 2015 annual financial results on April 22, 2016, the Company recorded a charge of over \$18 billion (£16.2 billion) to cover certain of the costs associated with its recall of millions of cars, legal claims, and related costs arising out of the diesel scandal. This charge caused VW AG to report an operating loss of approximately £4.1 billion and a net loss of £5.5 billion for 2015. When VW AG announced its results for the nine months ended September 30, 2016, it disclosed that it recognized additional provisions of \$1.8 billion (£2.0 billion) primarily as a result of increased provisions for legal risks. Additional charges, penalties, and liabilities are still likely to increase the cost to Volkswagen's investors.
- 30. This action seeks redress for investors in Volkswagen ADRs for the severe harms they have suffered as a result of Defendants' knowingly or recklessly false and misleading statements and omissions about Volkswagen cars' emissions compliance and "environmental friendliness" and VW AG's financial results.

#### III. JURISDICTION AND VENUE

- 31. This Complaint asserts claims under Sections 10(b) and 20(a) of the Exchange Act, 15 U.S.C. §§ 78j(b) and 78t(a), and the rules and regulations promulgated under the Exchange Act, including SEC Rule 10b-5, 17 C.F.R. § 240.10b-5 ("Rule 10b-5").
- 32. This Court has jurisdiction over the subject matter of this action under Section 27 of the Exchange Act, 15 U.S.C. § 78aa, and 28 U.S.C. § 1331, because this is a civil action arising under the laws of the United States.

<sup>&</sup>lt;sup>3</sup> This figure gives effect to the impact across all of Volkswagen's ordinary and preference shares and assumes conversion from euros to US dollars at an exchange rate of 1.00:1.13 (a loss of €55.645 billion).

- 33. Venue is proper in this District under Section 27 of the Exchange Act, 15 U.S.C. § 78aa, and 28 U.S.C. § 1391(b), (c), and (d). Many of the acts and transactions that constitute the alleged violations of law occurred in or affected persons in this District.
- 34. Finally, this First Amended Consolidated Securities Class Action Complaint is being filed as an original action in this District and as the Consolidated Securities Class Action in the MDL No. 2672 proceedings, which have been consolidated under 28 U.S.C. § 1407 before Judge Charles R. Breyer, presiding in the San Francisco Division of this District. In connection with the acts alleged in this Complaint, Defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including but not limited to the United States mail and interstate telephone communications.
- 35. All of the transactions in the securities that are at issue in this action took place entirely within the United States.
- 36. As explained on VW AG's website, an ADR is a US security representing an ownership interest in a foreign company's equity and VW AG's ADRs "trade in the US":

An American Depositary Receipt ("ADR") is a U.S. dollar denominated form of equity ownership in a non-U.S. company. It represents the foreign shares of the company held on deposit by a custodian bank in the company's home country and carries the corporate and economic rights of the foreign shares, subject to the terms specified on the ADR certificate.

Volkswagen Aktiengesellschaft has two sponsored ADR programs, representing the preference and ordinary shares. Both are sponsored by J.P. Morgan and trade in the US on the over-the-counter (OTC) market.

Type	Ticker	Cusip	Ratio (ADR vs. underlying)
Preferred	VLKPY	928 662 402	5:1
Ordinary	VLKAY	928 662 303	5:1

37. Since 1988, VW AG has had two sponsored ADR programs representing its preference and ordinary shares. Both are sponsored by J.P. Morgan and trade in the United States on OTC Markets Group Inc.'s OTCQX market, which is the highest tier of the over-the-counter market and is open only to companies that meet high financial standards, are current in their

firm. At all times during the Class Period, all Volkswagen ADRs represented ownership interests in preference or ordinary shares of VW AG that were held on deposit by J.P. Morgan. VW AG registered the ADRs with the United States Securities and Exchange Commission on Form F-6 registration statements dated February 10, 1998, July 2, 1998, and December 3, 2003.

disclosures, and are sponsored by a professional third-party investment bank, ADR bank, or law

- 38. The VW ordinary ADRs purchased by Lead Plaintiff ASHERS were sold in the United States by Deutsche Bank Securities, Inc., a US-incorporated and US-domiciled broker-dealer ("DBSI"), to CastleArk Management LLC, a US-organized and US-domiciled investment adviser, for the account of ASHERS and were delivered by DBSI in the United States through The Depository Trust Company, the principal US securities clearing and settlement system ("DTC"), to State Street Bank & Trust Company, a US-incorporated and US-domiciled bank, as custodian of ASHERS's account. Thus, the securities at issue were present at all relevant times in the United States; all parties to the transactions in the securities were US persons; ASHERS incurred irrevocable liability within the United States to take and pay for the securities; DBSI incurred irrevocable liability within the United States to deliver the securities; title to the securities was transferred in the United States; and the transactions cleared and settled through DTC at 55 Water Street, New York, New York.
- 39. The VW preference ADRs purchased by Plaintiff Miami Police were sold in the United States by UBS Financial Services Inc., a US-incorporated and US-domiciled broker-dealer ("UBSFSI"), to NFJ Investment Group LLC, a US-organized and US-domiciled investment adviser, for the account of Miami Police and were delivered by UBSFSI in the United States through DTC to UBSFSI, as custodian of Miami Police's account. Thus, the securities at issue were present at all relevant times in the United States; all parties to the transactions in the securities were US persons; Miami Police incurred irrevocable liability within the United States to take and pay for the securities; UBSFSI incurred irrevocable liability within the United States to deliver the securities; title to the securities was transferred in the United States; and the transactions cleared and settled through DTC at 55 Water Street, New York, New York.

40. On information and belief, (a) all Volkswagen ADRs were present at all relevant times in the United States; (b) all purchases or other acquisitions of Volkswagen ADRs during the Class Period were made in accounts at US financial institutions that are participants in DTC; (c) in all purchases or other acquisitions of Volkswagen ADRs during the Class Period, either (i) the purchaser incurred irrevocable liability within the United States to take and pay for the securities, or (ii) the seller incurred irrevocable liability within the United States to deliver the securities, or (iii) title to the securities was transferred in the United States; and (d) all transactions in the Volkswagen ADRs during the Class Period occurred in the United States and cleared and settled through DTC in New York.

#### IV. PARTIES

- 41. Lead Plaintiff Arkansas State Highway Employees' Retirement System ("ASHERS") is a public pension fund established for the payment of retirement and disability benefits for employees of the Arkansas State Highway and Transportation Department. As set forth in the accompanying certification, ASHERS purchased Volkswagen ordinary ADRs during the Class Period and suffered damages as a result of the conduct complained of in this Complaint. On January 5, 2016, this Court entered Pretrial Order No. 4 (ECF No. 545), appointing ASHERS as Lead Plaintiff.
- 42. Plaintiff Miami Police Relief and Pension Fund ("Miami Police") is a defined contribution retirement plan providing retirement benefits to active and retired Miami police officers. As set forth in the accompanying certification, Miami Police purchased Volkswagen preference ADRs during the Class Period and suffered damages as a result of the conduct complained of in this Complaint.
- 43. Defendant Volkswagen Aktiengesellschaft ("VW AG" or the "Company"), through itself and its divisions, is a multinational automotive manufacturing company headquartered in Wolfsburg, Lower Saxony, Germany. VW AG is one of the largest automobile manufacturers in the world and is the parent company of the Volkswagen Group, which comprises twelve brands, including Volkswagen, Audi, Seat, Skoda, Bentley, Bugatti, Lamborghini, Porsche, Ducati,

Scania, Man, and Volkswagen Commercial Vehicles. VW AG is the ultimate parent and controlling company of defendants VWGoA, VWoA, and AoA. VW AG was involved in the day-to-day operations of, and exercised power and control over, VWGoA, VWoA, and AoA including by, among other things, appointing their boards of directors and executive officers and directing their public statements and regulatory actions.

- 44. VW AG engineered, designed, developed, manufactured, and installed the defeat-device software on its diesel cars with the knowledge and understanding that they would be sold throughout the United States and the world. VW AG also developed, reviewed, and approved the marketing and advertising campaigns designed to sell the illegal cars.
- 45. Defendant VWGoA is a New Jersey corporation headquartered in Herndon, Virginia. VWGoA is a wholly owned subsidiary of VW AG and houses the US operations of many of VW AG's brands, including Volkswagen, Audi, Bentley, Bugatti, and Lamborghini. VWGoA has approximately 6,000 employees in the United States and sells its vehicles through a 1,000 dealer network in all 50 states. VWGoA also operates a manufacturing plant in Chattanooga, Tennessee. In 2014 alone, VWGoA sold 552,729 vehicles in the United States from its US dealer network in all 50 states, including 95,240 "turbocharged direct injection" ("TDI") "clean diesel" vehicles.
- 46. Defendant VWoA is also a New Jersey corporation headquartered in Herndon, Virginia. VWoA is an operating unit of VWGoA and is a subsidiary of VW AG. VWoA's operations in the United States include research and development, parts and vehicle processing, parts distribution, sales, marketing and service, and financial services.
- 47. Defendant Audi of America, Inc. ("AoA") is a New Jersey corporation headquartered in Herndon, Virginia. AoA markets and distributes Audi brand cars in all 50 states. On information and belief, AoA is a wholly-owned subsidiary of Audi AG. VW AG is Audi AG's controlling shareholder, with ownership of approximately 99.55% of the share capital of Audi AG.
- 48. Defendant Martin Winterkorn ("Winterkorn") was Chief Executive Officer ("CEO") and Chairman of the Management Board of VW AG from January 1, 2007 until his

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resignation on September 23, 2015, in the wake of the diesel-emissions scandal. Notably, Winterkorn was widely regarded as a detail-oriented, micromanaging CEO who retained control over engineering details that many other CEOs would fully relinquish to deputies. Winterkorn is being investigated by the German government for fraud in connection with the diesel scandal, and hand-picked the engineers who helped design the defeat devices.

- 49. Winterkorn's professional career in the automotive industry was focused on quality assurance and technical development, experience that Winterkorn used to help develop and conceal the illegal diesel software. Winterkorn's career in the car industry began in 1977 as a specialist assistant in the Process Engineering division at Robert Bosch GmbH ("Bosch"). In 1981, Winterkorn joined Audi AG as an assistant to the Member of the Board for Quality Assurance. At the beginning of 1988, he was promoted to departmental head of Central Quality Assurance, and in 1990 Head of Audi Quality Assurance. In 1993, Winterkorn became Head of Group Quality Assurance at VW AG. In January 1996, Winterkorn became Member of the Board of Management for Technical Development at the Volkswagen car brand. From July 2000, Winterkorn was a Member of the Board of Management of VW AG responsible for Research and Development. Winterkorn became Chairman of the Board of Management of Audi AG on March 1, 2002, and became responsible for Technical Development at Audi AG on January 1, 2003. In his capacity as Chairman of the Board of Management of Audi AG, Winterkorn was also a member of the Board of Management of VW AG. Winterkorn became CEO of VW AG on January 1, 2007. After he became CEO, Winterkorn launched VW AG's "Strategy 2018" with the goal to bypass General Motors and Toyota by the year 2018 to become the world's largest automaker.
- 50. Winterkorn was involved in the day-to-day operations of, and exercised power and control over, VW AG, VWGoA, VWoA, and AoA, including by, among other things, directing their public statements and regulatory actions. Winterkorn controlled VW AG, which in turn controlled VWGoA, VWoA, and AoA.
- 51. Winterkorn earned significant compensation throughout the Class Period as VW AG's CEO. Between 2010 and 2015, Winterkorn received nearly €80 million in compensation:

€9.3 million in 2010, €17.5 million in 2011, €14.5 million in 2012, €15 million in 2013, €15.9 million in 2014, and €7.3 million in 2015 (until his September 15, 2015 resignation).

- 52. Winterkorn is subject to the personal jurisdiction of the Court because he has availed himself of the laws of the United States through his management and control over VWGoA, VWoA, and AoA, as well as the manufacture, distribution, testing, and sale of hundreds of thousands of diesel vehicles imported and sold across the United States. Further, Winterkorn has frequently travelled to the United States to attend and make presentations at various car shows across the country in order to promote the sales of Volkswagen cars with the purported clean diesel technology.
- 53. Defendant Michael Horn ("Horn") was the President and CEO of VWGoA, as well as president of the VWoA brand, from January 2014 until his resignation on March 9, 2016. Horn also served as the Global Head of After Sales at VW AG and VWGoA from March 2009 to December 2013. Horn joined Volkswagen in 1990 and held many roles over his 25-year tenure with the Company, including Head of Volkswagen sales North West Europe, Head of Sales and Marketing Luxury Class Vehicles, and Head of Sales for Europe. Horn was involved in the day-to-day operations of, and exercised power and control over, VWGoA and VWoA, including by, among other things, directing their public statements and regulatory actions.
- 54. Defendant Herbert Diess ("Diess") is a Member of the Board of Management of VW AG and Chairman of the Board of Management of the Volkswagen Passenger Cars Brand. He assumed that position in July 2015. Before July 2015, Diess held high-level positions at other vehicle manufacturers in Europe. Since July 2015, Diess was involved in the day-to-day operations of, and exercised power and control over, VW AG, VWGoA, VWoA, and AoA including by, among other things, directing their public statements and regulatory actions. Diess controlled VW AG, which in turn controlled VWGoA, VWoA, and AoA.
- 55. Diess is subject to the personal jurisdiction of the Court because he has availed himself of the laws of the United States through his management and control over VWGoA, VWoA, and AoA, as well as the manufacture, distribution, testing, and sale of hundreds of

 thousands of diesel vehicles imported and sold across the United States. Further, Diess has frequently travelled to the United States to attend and make presentations at various car shows across the country in order to promote the sales of Volkswagen cars with the purported clean diesel technology.

56. Collectively, Winterkorn, Horn and Diess are referred to herein as the "Officer Defendants."

#### V. BACKGROUND

#### A. Volkswagen's History and Ownership Structure

- 57. VW AG was established in Germany in 1937 to produce a "people's car" that was intended to be affordable for ordinary German workers. After being largely destroyed during World War II, the Company resumed operations in the British Occupation Zone under the ownership of the West German government and the State of Lower Saxony. VW AG went on to become a central driver and symbol of West Germany's postwar economic revival.
- 58. In 1960, West Germany partially privatized VW AG and enacted the "Volkswagen Law" that regulated the privatization. The Volkswagen Law originally provided that major shareholder resolutions would require an 80% vote. The State of Lower Saxony held a voting share of 20.2%, which gave it the ability to veto major decisions and prevent takeovers by other shareholders.
- 59. In response to legal challenges by the European Union from 2007 to 2013, the Volkswagen Law was amended in 2008 to remove restrictions on share ownership but still require an 80% vote for major decisions, and was further amended in 2013 to abolish the 80% vote requirement. However, the Company remains insulated from the possibility of a takeover and from control by its outside shareholders because of its highly concentrated ownership, as discussed below.
- 60. In addition to its close ties to the State of Lower Saxony, VW AG has always had a close relationship with Porsche Automobil Holding SE ("Porsche"), a German automaker founded in 1931 by Ferdinand Porsche, who also co-founded VW AG and designed the original

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2009 in an attempt to acquire VW AG. However, Porsche experienced financial difficulties and was unable to complete the acquisition. Under an agreement between VW AG and Porsche in 2009, VW AG agreed to Porsche's 50.7% ownership of VW AG in exchange for VW AG's management taking control of Porsche. In effect, instead of Porsche taking control of VW AG, VW AG took control of Porsche. However, the Porsche family and the related Piëch family own and control Porsche and thus obtained majority control of VW AG as a result of these transactions. Also in connection with the 2009 transactions between VW AG and Porsche, Qatar Holding LLC, the state investment agency of Qatar, acquired 17% of VW AG from Porsche.

- 61. Thus, as of 2016, VW AG was owned 50.7% by Porsche, 20.0% by the State of Lower Saxony, 17.0% by Qatar Holding LLC, and only 12.3% by outside, public shareholders. This concentration of majority share ownership in the hands of three shareholders—one of which, owned and controlled by the Porsche and Piëch families, itself accounts for a majority contributes to a Volkswagen corporate culture of secrecy and lack of accountability.
- 62. That culture is reinforced by VW AG's insular corporate-governance structure. Under German law, VW AG has two boards: a Board of Management, which consists of VW AG's Chairman and other senior executive officers and is responsible for managing VW AG's business, and a Supervisory Board, which is responsible for monitoring the Company's management, approving important corporate decisions, and appointing the members of the Board of Management. The Supervisory Board currently has 20 members. Under the German Co-Determination Act, half of the members of the Supervisory Board are representatives of the German labor unions representing the Company's German workers. The Supervisory Board's ten other members are the Company's chairman, four members of the Porsche and Piëch families, two representatives of the State of Lower Saxony, two representatives of Qatar Holding LLC, and the chief executive officer of Swedish bank SEB, which is an adviser to Scania, one of VW AG's twelve brands. Thus, with only one possible exception (the SEB CEO), the entire Supervisory

Board consists of representatives of VW AG's unions and controlling shareholders. Not one member is a representative of outside, public shareholders.

## B. VW AG Used Its Purportedly "Clean Diesel" Vehicles to Grow Earnings and Market Share Globally and in the United States

- 63. VW AG is the largest automobile manufacturer in Europe, accounting for a quarter of the cars sold there. In 2008, it became the third-largest automaker in the world; in 2012, it became the second-largest; and in the first half of 2015, it briefly became the largest, before its sales fell as a result of its emissions-cheating scandal, bringing it back down to second place world-wide.
- 64. VWGoA was formed in 1955, and has been active in the US car market since then. In the mid-2000s, however, Volkswagen had a small market share of less than 2% in the United States, selling fewer than 240,000 vehicles in North America in each of 2005 and 2006. Furthermore, for MY 2007, strict US government emissions regulations forced Volkswagen to drop most diesel vehicles from its US lineup.<sup>4</sup>
- 65. A new lineup of "clean diesel" engines that were purportedly compliant with US emissions standards returned to the US market starting with MY 2009, introduced in August 2008. In 2010, Volkswagen announced goals of doubling its US market share from 2% to 4% by 2014 and of becoming the world's largest automaker by 2018. As noted above, it achieved the latter goal three years early.
- 66. Sales of "clean diesel" cars in the United States were a central part of Volkswagen's growth strategy. VW AG has admitted that "the new EA 189 2.0 liter diesel engine (later known as the Generation 1 or 'Gen 1') for use in the United States . . . would be the cornerstone of a new

<sup>&</sup>lt;sup>4</sup> Throughout this Complaint, all references to specific model-year vehicles are to the model years for vehicles released in the United States. Although diesel vehicles sold elsewhere in the world were also equipped with defeat-device software as discussed in this Complaint, the model years assigned to those vehicles at times differed from the US model years based on marketing conventions or minor technical differences.

project to sell passenger diesel vehicles in the United States. Selling diesel vehicles in the U.S. market was an important strategic goal of VW AG. This project became known within VW as the 'US'07' project." (SOF ¶32.) Volkswagen sold 43,869 "clean diesel" vehicles in the United States in 2009, 58,784 in 2010, 76,564 in 2011, 99,121 in 2012, 111,285 in 2013, and 98,500 in 2014. By 2015, Volkswagen had a 70% market share of US diesel vehicle sales, and almost one-quarter of its US sales were diesels. VW AG has admitted that "defeat device software . . . [was] installed on all of the approximately 585,000 Subject Vehicles and the Porsche Vehicles sold in the United States from 2009 through 2015." (SOF ¶72.)

## C. Volkswagen Was Required to Comply with Emissions Standards in the United States and Europe

- 67. During the Class Period, various regulatory standards were in place in the United States and the European Union to limit the amount of pollutants that vehicles discharged into the atmosphere, and to further the public health. For instance, the prevailing US regulatory schemes established by the US Environmental Protection Agency ("EPA") were known as "Tier 2" and "Tier 3." The Tier 2 standards were phased in between 2004 and 2009, and full compliance was required by 2009. The Tier 2 emission standards are structured into 8 permanent and 3 temporary certification levels of different stringency, called "certification bins," and included an average fleet standard for nitrogen oxide ("NOx") emissions. One of the certification bins in Tier 2 is known as "Bin 5," and requires vehicles certified under that category to emit less than 0.05 grams of NOx per mile during their intermediate life, and 0.07 grams of NOx per mile during their full useful life.
- 68. The Tier 3 standards were enacted in March 2014 and are to be phased in from 2017 through 2025. While the Tier 3 requirements are more stringent than the Tier 2 standards, the structure of Tier 3 is similar to that of Tier 2—manufacturers must still certify vehicles in one of several categories, and must meet a fleet-average emission standard for their vehicles in a given model year.

- 69. In addition to the federal regulations, Volkswagen must also comply with the emission regulations of all US States, which may apply to the EPA for waivers to enact standards stricter than the EPA's. Compliance with California's emission standards is critically important given that they are generally the most stringent of all prevailing standards. Thus, if Volkswagen failed to comply with California's standards—many of which have been adopted by numerous other States—the Company would be unable to sell its vehicles in those states.
- 70. In November 1998, the California Air Resources Board ("CARB"), California's regulatory agency that oversees among other things automotive emissions, adopted the Low Emission Vehicle II emissions standards, which were phased in from 2004 to 2010. California's emissions standards are the most stringent of any state in the United States, and numerous states have adopted CARB's standards as their own. Manufacturers, such as Volkswagen, were permitted to certify vehicles to these standards until model year 2019. Under the Low Emission Vehicle II standards, carmakers were required to comply with at least one of several emissions categories, including: (1) Low Emission Vehicles ("LEV II"); (2) Ultra Low Emission Vehicles ("ULEV II"); (3) Super Ultra Low Emission Vehicles ("SULEV II"); and (4) Partial Zero Emission Vehicles ("PZEV").
- Approximately 13 years later, in January 2012, CARB adopted the more stringent Low Emission Vehicle III emissions standards, which are to be phased in over the 2015–2025 model years. Carmakers were permitted to certify vehicles to these standards before model year 2015, and by model year 2020, all vehicles must comply with Low Emission Vehicle III emissions standards. The Low Emission Vehicle III standards expanded upon and tightened the Low Emission Vehicle II standards in several respects, but maintained the rubric of emissions categories under LEV III, ULEV III, SULEV III, and zero emission cars.
- 72. Meanwhile, the relevant standards in the European Union during the Class Period were the Euro-5 and Euro-6 emissions standards. The Euro-5 standard was implemented in September 2009, and the Euro-6 standard was implemented in September 2014.

## D. VW AG and Its Divisions Secretly Use Illegal "Defeat Devices" to Cheat on Emissions Testing

- 73. There are two main types of internal combustion engines—diesel and gasoline—and there are generally trade-offs to each. Diesel engines have long been popular in Europe, where more than half of all vehicles sold are diesels, because they typically provide better fuel economy and efficiency than cars that run on gasoline. As opposed to a gasoline engine, which uses spark plugs to ignite gasoline vapors and propel the vehicle, a diesel engine subjects a mixture of liquid fuel and air to a high-temperature "pressure-cooker" environment, where the mixture spontaneously combusts. Under those circumstances, the gas expands forcefully, producing significantly more torque than a gasoline engine—leading to more power.
- 74. While both diesel and gasoline are refined from crude oil, diesel fuel is a more dense energy source than gasoline and therefore able to achieve greater fuel economy. The trade-off is that while diesel cars get better mileage, traditional diesel engines emit far more harmful emissions and particulate matter than gasoline, many of which are costly and difficult to treat or otherwise contain, such as NOx.
- 75. NOx is a family of highly reactive gasses that interact with volatile organic compounds in the atmosphere to form ozone, a principal component of smog, as well as acid rain. Breathing ozone can cause chest pain, coughing, throat irritation, and congestion; can worsen bronchitis, emphysema, and asthma; and can lead to premature death. High NOx levels also lead to severe harm to marine ecosystems, and can cause plant and marine animal death. Approximately 50% of NOx emitted comes from automobiles and other vehicular sources, and controlling these emissions can add significantly to the cost of the cars and reduce their power, acceleration, and torque.
- 76. As described above, to control emissions of NOx, particulate matter, and other pollutants, US federal and state laws require vehicles to be certified as compliant with emissions standards before they can be sold. Vehicles that are equipped with "defeat devices" cannot be certified or sold. As defined in the relevant federal regulations, a "defeat device" is an "auxiliary emission control device" 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 limited exceptions apply. An "auxiliary emission control device" is a design element that senses temperature, vehicle speed, engine revolutions per minute, or other parameters for the purpose of activating, modulating, delaying, or deactivating the vehicle's emission control system.

77. As VW AG has admitted, "at least in or about 2006, VW AG employees working under the supervision of Supervisors B, C, and F" (believed to be Krebs, Hadler, and Dorenkamp, respectively) "were designing the new EA 189 2.0 liter diesel engine (later known as the Generation 1 or 'Gen 1') for use in the United States that would be the cornerstone of a new project to sell passenger diesel vehicles in the United States." (SOF ¶32.) However, "Supervisors B, C, and F, and others, . . . realized that VW could not design a diesel engine that would both meet the stricter U.S. NOx emissions standards that would become effective in 2007 and attract sufficient customer demand in the U.S. market." (SOF ¶33.)<sup>5</sup>

- (1) "Supervisor A"—Heinz-Jakob Neuβer, who was the supervisor in charge of (a) the VW Brand Engine Development department from in or about October 2011 until in or about July 2013, (b) Engine Development for all of VW AG from in or about October 2012 to in or about September 2015, and (c) Development for VW Brand from July 2013 to September 2015 (SOF ¶7; *cf.* SSI ¶24);
- (2) "Supervisor B"—Rudolf Krebs, who was a supervisor in charge of the VW Brand Engine Development department from in or about May 2005 to in or about April 2007 (SOF ¶8; *cf.* www.ndr.de/der\_ndr/presse/mitteilungen/VW-Zeugenaussagen-belasten-frueheren-Leiter-der-Motorenentwicklung-vorerst-keine-Beweise-gegen-damalige-Vorstaende,pressemeldungndr17130.html);
- (3) "Supervisor C"—Jens Hadler, who was a supervisor in charge of the VW Brand Engine Development department from in or about May 2007 to in or about March 2011 (SOF ¶9; *cf.* SSI ¶25);
- (4) "Supervisor D"—Friedrich Eichler, who was a supervisor in charge of the VW Brand Engine Development department from in or about October 2013 to at least January 11, 2017 (SOF ¶10, 63; *cf.* www.bild.de/geld/wirtschaft/volkswagen/manager-gab-betrug-schon-frueher-zu-43930990.bild.html);
- (5) "Supervisor E"—Bernd Gottweis, who was a supervisor with responsibility for VW AG's Quality Management and Product Safety department who reported to the supervisor in charge of Quality Management from in or about 2007 to in or about October 2014 (SOF ¶11; *cf.* SSI ¶26); and

<sup>&</sup>lt;sup>5</sup> The six "Supervisors A-F" referred to in the admitted Statement of Facts are believed to be:

78. VW AG has also admitted that "[i]nstead of bringing to market a diesel vehicle that could legitimately meet the new, more restrictive U.S. NOx emissions standards, VW AG employees acting at the direction of Supervisors B, C, and F and others, including Company A employees, designed, created, and implemented a software function to detect, evade, and defeat U.S. emissions standards." (SOF ¶33.) VW AG admitted that "Company A" is "an automotive engineering company based in Berlin, Germany, which specialized in software, electronics, and technology support for vehicle manufacturers. VW AG owned fifty percent of Company A's shares and was Company A's largest customer." (SOF ¶6.) Company A is believed to be Bosch.

#### 79. VW AG also admitted:

While employees acting at their direction designed and implemented the defeat device software, Supervisors B, C, and F, and others knew that U.S. regulators would measure VW's diesel vehicles' emissions through standard U.S. tests with specific, published drive cycles. Accordingly, VW AG employees acting at the direction of Supervisors B, C, and F, and others designed the VW defeat device to recognize whether the vehicle was undergoing standard U.S. emissions testing on a dynamometer (or "dyno") or whether the vehicle was being driven on the road under normal driving conditions. The defeat device accomplished this by recognizing the standard drive cycles used by U.S. regulators. If the vehicle's software detected that it was being tested, the vehicle performed in one mode, which satisfied U.S. NOx emissions standards. If the defeat device detected that the vehicle was not being tested, it operated in a different mode, in which the effectiveness of the vehicle's emissions control systems was reduced substantially, causing the vehicle to emit substantially higher NOx, sometimes 35 times higher than U.S. standards.

(SOF ¶34.)

80. With regard to its 3.0 liter diesel vehicles, VW AG also admitted that for "Audi and Porsche diesel vehicles sold in the United States for model years 2009-2016 . . . Audi engineers designed and installed software designed to detect, evade and defeat U.S. emissions standards, which constituted a defeat device under U.S. law." (SOF ¶39.) "Specifically":

<sup>(6) &</sup>quot;Supervisor F"—Richard Dorenkamp, who was a supervisor within the VW Brand Engine Development department from in or about 2003 until in or about December 2012 (SOF ¶12; *cf.* SSI ¶23).

Audi AG engineers calibrated a defeat device for the 3.0 liter Subject Vehicles and the Porsche Vehicles that varied injection levels of a solution consisting of urea and water ("AdBlue") into the exhaust gas system based on whether the vehicle was being tested or not, with less NOx reduction occurring during regular driving conditions. In this way, the vehicle consumed less AdBlue, and avoided a corresponding increase in the vehicle's AdBlue tank size, which would have decreased the vehicle's trunk size, and made the vehicle less marketable in the United States. In addition the vehicle could drive further between service intervals, which was also perceived as important to the vehicle's marketability in the United States.

#### (SOF ¶40.)

- 81. This misconduct resulted in NOx emissions during normal operation of up to 9 times the EPA limits. As a result, these vehicles also violated prevailing EPA, CARB, and Euro-5 emissions standards. The study conducted by the ICCT/WVU detected the excess emissions in two of the subject "clean diesel" vehicles. That study was referred to Volkswagen, the EPA, and CARB.
- 82. The public health consequences of Volkswagen's vehicles' heightened NOx emissions levels are stark. Indeed, the AP reported on October 5, 2015 that "Volkswagen's pollution-control chicanery has not just been victimless tinkering, killing between five and 20 people in the United States annually in recent years." The AP's statistical and computer analysis estimated that, over seven years, Volkswagen's illegal emissions caused between 16 and 94 deaths in the United States (with more coming as the number of diesels on the road increased), at a cost of "well over \$100 million." Likewise, according to a report published on October 29, 2015 by research scientists at Harvard University and the Massachusetts Institute of Technology, illegally high NOx emissions produced by Volkswagen's diesel vehicles equipped with defeat devices are projected to cause approximately 60 deaths in the United States by the end of 2016. That report also estimated "mortality costs from 2008 until the end of 2015 due to the excess VW NOx emissions . . . at \$450 [million], . . . while future costs if there is no recall (but no further sales from September 2015) are forecast to be \$910 [million]."

#### VI. DEFENDANTS' FRAUDULENT SCHEME

- misrepresented and concealed from investors material facts concerning VW AG's regulatory compliance, financial results, and commitment to producing "environmentally friendly" vehicles. For example, VW AG repeatedly misrepresented to investors that its vehicles—including the defeat device-equipped diesel vehicles at issue here—complied with emissions standards in all 50 US states and the Euro-5 standards in Europe. The Company's reported financial results were also materially false and misleading, given that they failed to properly reflect the liabilities (warranty or other customer claims for compensation, regulatory fines, and civil and criminal penalties) flowing from the Company's emissions cheating, which should have been accounted for as provisions under International Accounting Standard ("IAS") 37 and disclosed during the Class Period. Those provisions would have correspondingly reduced VW AG's earnings in each reporting period throughout the Class Period. The failure to accrue such provisions had the effect of inflating VW AG's reported profit and distorting other important financial metrics during the Class Period.
- 84. As Defendants have now repeatedly admitted, Volkswagen engaged in massive, widespread misconduct through the installation and use of defeat-device software in approximately 11 million vehicles with purported "clean diesel" engines—including approximately 585,000 in the United States and 8.5 million in Europe. These defeat devices were designed to (and did) mask the engines' failure to meet emissions standards. As a result, contrary to Defendants' representations, VW AG failed to comply with regulations, its cars did not comply with emissions standards for any US state or Europe, and the Company significantly overstated its financial results by failing to properly record provisions arising out of the liabilities owing to its use of illegal defeat devices.
- 85. Had VW AG accurately reported the cars' levels of NOx emissions, it could not have legally marketed or sold the cars in the United States. Similarly, the installation of the defeat

devices in Europe was also illegal and contributed to the cars' purported ability to meet European emissions standards.

- 86. Significantly, Volkswagen's top executives knew that the Company's "clean diesel" vehicles passed emissions tests only because they were outfitted with defeat-device software, and when actually driven, produced NOx and other emissions far in excess of permissible levels. In fact, the scandal was intentionally engineered by VW AG's senior management, including Defendant Winterkorn, to increase market share in the United States—where Volkswagen has long struggled—in order to become the world's largest car maker by 2018. Defendants' fraud was further facilitated by a demanding corporate culture to sell cars and keep management happy at all costs, with reported results far more important than legal and regulatory compliance.
- 87. As discussed below, Volkswagen's top executives, including Defendants Winterkorn and Horn and their closest colleagues, knew or at the very least were severely reckless in not knowing that Volkswagen's TDI cars used defeat-device software to pass emissions testing, but otherwise produced emissions at elevated levels in violation of EPA and CARB regulations.
- 88. Before the start of the Class Period, in 2006, a top VW AG technology executive prepared a PowerPoint presentation to show how the Company could cheat on emissions tests in the United States. The PowerPoint was prepared because VW AG executives knew that there was no possible way for the Company to produce diesel cars that were affordable, had an acceptable level of performance, and were able to comply with emission standards. After reviewing the presentation, VW AG executives consistently rejected proposals to improve the emissions equipment so that it would comply with emission rules. In fact, the entire Management Board, led by Defendant Winterkorn, repeatedly rebuffed lower-ranking employees who submitted technical proposals for upgrading the emissions controls because the upgrades would cost too much, and would provide no noticeable benefit to customers.
- 89. Indeed, as VW AG has already admitted, "Supervisor F" [Dorenkamp] "authorized VW AG engineers to use the defeat device in the development of the US'07 project"

(Volkswagen's 2.0 liter "clean diesel" cars), "despite concerns expressed by certain VW AG employees about the propriety of designing and activating the defeat device software. In or about the fall of 2006, lower level VW AG engineers, with the support of their supervisors, raised objections to the propriety of the defeat device, and elevated the issue to Supervisor B [Krebs]. During a meeting that occurred in or about November 2006, VW AG employees briefed Supervisor B on the purpose and design of the defeat device. During the meeting, Supervisor B decided that VW should continue with the production of the US'07 project with the defeat device, and instructed those in attendance, in sum and substance, not to get caught." (SOF ¶36.)

- 90. Further, as the United States alleges in its Second Superseding Indictment, "[o]n or about March 21, 2007, DORENKAMP, his co-conspirators and other VW employees met with CARB in El Monte, California. CARB had requested that VW specifically discuss the AECDs [auxiliary emissions control devices] associated with the emissions control systems in the EA 189 diesel engine design. Throughout the meeting, DORENKAMP and other VW employees knew they planned to include a defeat device in the EA 189 diesel engine but concealed the existence of the defeat device from CARB." (SSI ¶61; attached as Exhibit 2.)6
- 91. The United States alleges that "[i]n the fall of 2007, DORENKAMP participated in a meeting with HADLER and other, during which DORENKAMP argued for continuation of the EA 189 towards production, even while some of his colleagues were against it. HADLER approved the continued development of the EA 189 with the defeat device following the meeting." (SSI ¶62.)
- 92. The United States further alleges that "[o]n or about October 12, 2007, . . . drafts of slide presentations were exchanged with HADLER, DORENKAMP, and others in preparation for a senior executive technical meeting at which HADLER would be presenting on the project's status. Included in the presentation were back-up slides, two of which contained explicit and repeated references to software changes describing the defeat device through engineering terms,

<sup>&</sup>lt;sup>6</sup> "VW" is defined in the Second Superseding Indictment to refer collectively to VW AG, Audi AG, and Volkswagen Group of America, Inc. (SSI ¶13.)

including 'precon recognition,' and 'emissions tight mode.' On October 13, 2007, HADLER provided substantive edits to the PowerPoint presentation." (SSI ¶63.)

- 93. The United States further alleges that "[o]n or about October 17, 2007, another version of a backup slide containing software changes that made numerous references to explicit engineering terms for the defeat device was exchanged with HADLER, DORENKAMP, and others. In response, HADLER wrote (in German) that 'we shall please never present this anywhere and will also not distribute it.'" (SSI ¶64.)
- 94. Bosch, the supplier of the defeat devices, warned VW AG's "top circles," which are believed to have included Winterkorn, as early as 2007 not to use the devices for illegal purposes, and that Volkswagen's intended use of the devices was illegal. Further, an internal Volkswagen whistleblower warned the Company in 2011 that the Company was illegally manipulating reported emissions data. The whistleblower specifically alerted VW AG Management Board member Neuβer, who was then-VW AG's head of development, was subsequently the Company's brand manager, and was a close confidant of Winterkorn. Finally, Defendants have admitted that Winterkorn received multiple memoranda in 2014, including one in May 2014 from Gottweis, a quality-control expert known as VW AG's "fireman," regarding the Company's unlawful use of defeat-device software.
- 95. Regardless of the repeated warnings by multiple internal and outside parties, Winterkorn knew of Volkswagen's cheating due to his hands-on management style, well-known attention to detail, experience in engineering and quality assurance, and close relationships with the engineers directly responsible for the TDI engines at issue, and, based on information and belief, orchestrated the fraud himself.

<sup>&</sup>lt;sup>7</sup> Neuβer has been a member of the Board of Management for the Development Division of the Volkswagen brand since 2013, and served as the head of Volkswagen Group's powertrain development since 2012. The *New York Times* has reported that Neuβer is "[b]y far the most prominent person indicted so far," "one of the select few executives who presented new models at car shows," the former boss of "10,000 people at Volkswagen's vast development complex in Wolfsburg, Germany," and "known inside Volkswagen for his loyalty to Martin Winterkorn, Volkswagen's chief executive until he resigned when the scandal broke." Jack Ewing, "Volkswagen's Diesel Scandal: Who Has Been Charged?," *New York Times*, Jan. 13, 2017.

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96. Further, in May 2014, ICCT and WVU published a study showing that, during normal driving conditions, two of the Company's "clean diesel" vehicles were emitting NOx at levels that exceeded allowable limits. That study was referred to Volkswagen, the EPA and CARB. Significantly, once ICCT/WVU and government regulators such as EPA and CARB discovered abnormalities in Volkswagen's cars' emissions tests, Defendants continued to mislead the regulators by blaming faulty testing procedures in an attempt to keep their misconduct hidden. In effect, Volkswagen doubled down on its fraud, hoping that it would simply slip through the cracks, might lead to only a minimal fine or minor recall, or would simply be ignored altogether by the authorities.

97. It was only after US regulators refused to certify Volkswagen's current lineup of diesel vehicles that Defendants were forced to admit that they installed defeat devices in Volkswagen's TDI cars. At that point, and after privately telling regulators that "these vehicles were designed and manufactured with a defeat device to bypass, defeat, or render inoperative elements of the vehicles' emissions control system," Defendants finally admitted the truth publicly. Defendant Winterkorn, then VW AG's CEO, apologized that Volkswagen had "broken the trust of our customers and the public." Winterkorn further announced that "Volkswagen has ordered an external investigation of this matter," and that the Company would "do everything necessary in order to reverse the damage this has caused." At the same time, a Volkswagen spokesperson stated that "We have admitted to it to the regulator. It is true." On September 25, 2015, Berthold Huber, Deputy Chairman of VW AG's Supervisory Board also stated, "[t]he test manipulations are a moral and political disaster for Volkswagen."

98. Likewise, VWGoA President and CEO Michael Horn admitted that "our company was dishonest. With the EPA, and the California Air Resources Board, with all of you. And in my German words, we have totally screwed up." Winterkorn again apologized, stating that he was "endlessly sorry that we have disappointed this trust" that "millions of people across the world" had in "our brands, our cars, and our technology."

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99. Importantly, after Volkswagen hired the Jones Day law firm to conduct a purportedly independent investigation into the Company's misconduct, Volkswagen refused to release the results at the time they were promised, citing "unacceptable risks for Volkswagen." This is despite the fact that a senior Volkswagen lawyer ordered the destruction of "incriminating material" from the Company's systems before issuing a litigation hold pertaining to the diesel matter.

#### **Volkswagen's Emissions Cheating Grew** Α. out of a Culture of Fear and Control

100. Volkswagen's emissions cheating and the current diesel scandal grew out of the Company's culture. Both before and throughout Winterkorn's tenure at Volkswagen, the corporate environment at the Company was one in which failures were not tolerated, and pressure came from Volkswagen's top leadership to produce bottom-line results despite technical obstacles, or else face serious consequences.

#### 1. Winterkorn Was a Demanding, Detail-Focused Micromanager, Which He Learned from His Mentor, Former CEO Piech

- In early 2007, when Winterkorn was installed as VW AG's CEO, it was at the 101. direction of Supervisory Board Chairman Ferdinand Piech. Fortune magazine has called Piech— VW AG's CEO from 1992 to 2002 and Chairman of the Supervisory Board from 2002 until early 2015—"a brilliant engineer and a ruthless, terrifying manager who dominated VW" and "infused VW with an ambition and drive that made the most of its political heft, presiding over a culture that was, if not above the law, then not above stretching it, by many accounts."
- 102. Bob Lutz, a longtime high-ranking executive at numerous car companies including BMW, Ford, Chrysler, and General Motors, wrote a November 4, 2015 article in Road & Track how the "immensely powerful" Piech "ran everything" at Volkswagen through "a reign of terror and a culture where performance was driven by fear and intimidation. He just says, 'You will sell diesels in the U.S., and you will not fail. . . . 'The guy was absolutely brutal." As Lutz describes, the corporate culture at Volkswagen that Piech fostered "gets short-term results, but it's a culture

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that's extremely dangerous. . . . It's fast and it's efficient, but at huge risk." Similarly, the Kolner Stadt-Anzeiger reported on January 24, 2016 that "there was no room for even well founded objections," and "[t]he culture of fear cultivated by the self-important company leaders is enormously detrimental to the entire company."

Winterkorn was Piech's protégé and, much like Piech, Winterkorn was a 103. demanding, detail-oriented micromanager who ran VW AG by instilling fear in employees and demanding bottom-line results regardless of any obstacles. Winterkorn himself has touted his imperious management style and attention to technical detail. In VW AG's 2010 annual report, the Company included a conversation between Winterkorn and German astronaut Hans Wilhelm Schlegel, in which the two compared their "share[d] passion for scientific analysis combined with hands-on expertise." The report described Winterkorn as "someone who is au fait with every last technical detail," and quoted Winterkorn as stating that

[t]he Volkswagen Group is so successful today because this notion of 'digging deeper' has become part of our corporate culture. . . . As an automotive manager, it is not enough simply to enjoy driving cars—you have to understand them right down to every last detail. Many things in our Group today only work because my Board of Management colleagues and I are extremely well versed in all aspects of the business. If developers say that a solution is not possible from a technical, timing, or financial point of view, I am able to challenge them. And everyone knows that.

Winterkorn further stated that he could "identify with" managers who "keep [their] finger[s] on the pulse of events."

104. According to a January 23, 2016 report by Reuters, an internal Company report confirmed that the pressure at Volkswagen was such that "[w]ithin the company there was a culture of 'we can do everything,' so to say something cannot be done, was not acceptable." In other words, as reported in German publication Magazin on November 8, 2015, "[t]he reason for the manipulations is said to have been the fact that it was impossible to meet the goals set by the VW CEO Martin Winterkorn, who has since resigned, with legal means. . . . A culture of fear is said to have prevailed."

105. Stories of Winterkorn's attention to detail and micromanaging are legion. As *Fortune* reported in its March 15, 2016 issue:

Winterkorn might have been a notch less imperious than [Piech], but he still displayed an almost theatrical officiousness: . . . He was known for carrying a micrometer to check the minutest measurements of cars. VW routinely transported twice as many vehicles to auto shows as it planned to display because Winterkorn was known for vetoing a particular selection if he detected the slightest imperfection.

Like his mentor [Piech], Winterkorn had outsize ambitions. One of his first acts as CEO was to unveil a plan to overtake both General Motors and Toyota by 2018 to become the world's No. 1 automaker, "not just in units, but in profitability, innovation, customer satisfaction, everything," as he put it. Winterkorn wanted everything.

- 106. As a micromanager with a deep engineering background, Winterkorn focused particularly closely on even small details of engineering issues that arose at Volkswagen.
- 107. Another key contributor to the emissions-cheating scandal was the Company's unusual corporate structure. Consistent with the German "codetermination" law, labor representatives hold half the seats on VW AG's Supervisory Board. Because of the labor representatives' strong power at the Company, VW AG's management has at times been unable to implement reforms, such as job cuts, that would enable the Company to increase its profit margins.
- 108. As a securities analyst from Natixis wrote in a November 24, 2015 report titled "No salvation without a reform of the governance," "[t]he story of the fraud is punctuated by examples of poor strategic decisions and management methods that independent, balanced governance would have prevented or at least curbed. . . . The denial of this fraud for more than a year moreover reflects an authoritarian, centralised climate in the group, which discouraged adversarial debate." Nataxis continued, "we believe that the method of management (visibly an authoritarian climate existed with Mr. Winterkorn, CEO, and Mr. Piech, chairman) and the lack of independent governance are to blame." Similarly, an analyst from Evercore ISI reported on November 13, 2015 that "[f]or the last two decades, VW has proven multiple times that

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shareholder value is at the bottom of its preference list. The interests from the Union and Lower Saxony weighed more, especially during times when CEOs needed support to build their empire."

#### 2. Volkswagen's Culture Has Given Rise to Numerous Past Scandals

As the New York Times wrote on September 25, 2015, "given Volkswagen's 109. history, culture and corporate structure, the real mystery may be why something like this didn't happen sooner." Indeed, the *Times* quoted corporate-governance expert Charles Elson of the University of Delaware as saying, "[t]he governance of Volkswagen was a breeding ground for scandal," and "[i]t was an accident waiting to happen." A longtime former Company executive told the *Times* that "a scandal, especially one involving emissions, was all but inevitable at Volkswagen. [The executive] cited the company's isolation, its clannish board and a deep-rooted hostility to environmental regulations among its engineers." Indeed, Volkswagen's use of defeat devices to flout environmental regulations goes back decades. In 1974, the Company paid a \$120,000 fine to the EPA after using defeat devices to disable cars' pollution-control systems in violation of the Clean Air Act.

The pressure-filled culture at Volkswagen, rife with secrecy and disregard for 110. regulatory and legal compliance, has manifested itself in numerous scandals over the years. As the Daily Mail reported on September 24, 2015, the culture at Volkswagen "made arrogant bosses feel invincible in the face of competition and regulation." For example, in 2005, the "perks and prostitution" scandal arose out of some of the same structural factors—the need to maintain labor's support while finding ways to significantly improve profit margins, along with a culture of fear and flagrant disregard for the rules—that led to the current emissions scandal. A German member of Parliament and member of the works council who was prosecuted in the scandal's wake pointed his finger squarely at the Company: "My conduct at the time is incomprehensible to me and contradicts all my personal values. I can only explain it by the general atmosphere at Volkswagen at the time."

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111. Also in 2005, Volkswagen faced a corruption scandal after a senior executive promised to build a factory in India in exchange for a €2 million bribe. In 2006, Volkswagen was implicated along with other carmakers amid accusations that auto executives were taking bribes from suppliers. And in 2009, law enforcement raided Porsche's headquarters as part of an investigation into market manipulation by Porsche executives.

- 112. In other words, as *Fortune* magazine reported about the Company's emissions cheating, "VW's misbehavior did not come out of nowhere," and "[t]he company's immense power, it seems, meant never having to say it was sorry, at least not in Europe" where Volkswagen "has long steamrolled regulators." That article continued, "VW is driven by a ruthless, overweening culture. . . . It's a culture that mandated success at all costs. . . . [O]ne has to wonder how the brass could have been blind to conduct that was so central to achieving the company's goals."
- 113. German media outlets have reported on the abuses that arose out of Winterkorn's demanding management style. *Frankfurter Allgemeine Zeitung* reported on September 23, 2015 that Winterkorn "created a climate of pressure to perform and intimidation in the Group in which fraud thrives," making "shortcuts and cheating more likely"; while *Der Spiegel* reported on November 7, 2015 that "dictatorship and megalomania" have "led to disaster" and a "culture of fraud" at Volkswagen, where Piech and Winterkorn have led "with the power of a dictator who does not tolerate any opposition and with the vision to make it to the top."
- 114. German newspaper *Der Spiegel* even described Winterkorn's management style as "North Korea without labor camps," a characterization confirmed by automotive expert Ferdinand Dudenhoeffer ("Dudenhoeffer"), director of the Center for Automotive Research at the University of Duisberg-Essen, in *Die Presse* on October 3, 2015. As a result, according to an interview with Dudenhoeffer published in *Der Westen* on October 20, 2015, "VW is basically ungovernable," and "[w]hat is important at VW is not whether this or that manager is qualified for the leadership role. Volkswagen has been rocked by affairs for more than 15 years. . . . VW is missing the internal control. . . . This is not a case of negligence or a sloppy job." Dudenhoeffer also told *Die Presse*

 that Winterkorn "concentrated all power in his person, and when you pool all power than you feel like god and act like god. In addition he was a know it all and had his hands in everything."

115. The climate at Volkswagen, where results were demanded at any cost, fostered and rewarded cutting corners. On December 10, 2015, Hans Dieter Poetsch, the Chairman of VW AG's Supervisory Board since October 2015, admitted that the emissions scandal occurred in light of the Company's ambition for global dominance and "a tolerance for breaking the rules." According to Poetsch, "[i]t proves not to have been a one-time error, but rather a chain of errors that were allowed to happen."

## 3. Winterkorn Installed Close Associates Who Were Part of the Defeat Devices' Development as Top Executives

116. As German newspaper *Bild am Sonntag* ("*Bild*") reported on February 14, 2016, Winterkorn was a "car man who normally took care of every detail" at Volkswagen. To help take care of those details, Winterkorn installed as his top lieutenants engineers with whom he had long, close relationships. Specifically, Winterkorn named as VW AG's heads of research and development Ulrich Hackenberg, formerly Audi's chief engineer, and Wolfgang Hatz, formerly a top engine developer at Porsche, and put Hackenberg and Hatz in charge of the Volkswagen Research and Development group and engine development. Both have since been fired from the Company.

117. Until his recent firing, Hackenberg was a member of the Volkswagen brand's Board for Development from 2007, and was a member of the Audi AG Management Board from 2013, overseeing Audi's technical development. Similarly, until his recent firing, Hatz was a member of the Porsche AG Management Board in charge of Research and Development since 2011, and also the head of engine and transmission development for the entire Volkswagen Automotive Group.

118. It was reportedly during Winterkorn's reign at Audi, **as early as 1999**, that the idea took root to use defeat devices to evade increasingly strict emissions standards. *Handelsblatt* reported on April 19, 2016 that Jones Day's investigation into the emissions cheating scandal has shown that in 1999, when Winterkorn served as Audi's CEO, engine developers doubted that they

could meet stricter emissions limits legally, and were already contemplating installing illegal software to ostensibly comply with those rules. Audi experts therefore devised software that could alter certain emissions features during testing. Internally, the device was called "acoustic mode" and "acoustic function." But the illegal plan was not implemented until years later, when Winterkorn was CEO of VW AG. Then, the software used to develop an engine that could evade emission standards.

- 119. In fact, VW AG has admitted in its plea agreement with the United States that "[i]n designing the defeat device, Volkswagen engineers borrowed the original concept of the dual-mode, emissions cycle-beating software from Audi. On or about May 17, 2006, a VW engineer, in describing the Audi software, sent an email to employees in the VW Brand Engine Development department that described aspects of the software and cautioned against using it in its current form because it was 'pure' cycle-beating, i.e., as a mechanism to detect, evade and defeat U.S. emissions cycles or tests. The VW AG engineer wrote (in German), 'within the clearance structure of the pre-fuel injection the acoustic function is nearly always activated within our current US'07-data set. This function is pure [cycle-beating] and can like this absolutely not be used for US '07." (SOF ¶35 (alteration in original).)
- 120. According to press reports, Hackenberg and Hatz were Winterkorn's "top aides during his tenure at Audi," and once at Volkswagen, had daily responsibility for developing Volkswagen's clean-diesel strategy. As the *Wall Street Journal* reported on October 5, 2015, Hatz and Hackenberg, along with VW AG development head Hanz-Jakob Neuβer, "are at the center of [Volkswagen's] probe into the installation of engine software designed to fool regulators." Indeed, Hatz and Hackenberg were two of the first Volkswagen executives suspended once the Company's emissions cheating became public, and Hackenberg subsequently resigned. *WirtschaftsWoche* reported on December 4, 2015 that just after the scandal broke, on September 21, 2015, "Winterkorn—who until then had a close male bond with Hackenberg—is said to have prompted his longtime companion to take responsibility for the woes . . . so his friend Winterkorn could declare an end to the disaster . . . and continue to rule."

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121. German media have reported on Winterkorn's close relationship with Hackenberg, who worked at Winterkorn's behest and had vast authority at Audi and at VW AG. *Süddeutsche Zeitung* reported on June 24, 2013 that Winterkorn had brought Hackenberg to Volkswagen, describing him as "[a] man who is very close to Winterkorn. Probably closer than most. . . . The 63-year old, this much can be said, is likely the most important intimate of VW group CEO Martin Winterkorn. The men value each other a lot. 'Hacki,' as Winterkorn calls the colleague affectionately, has been his problem solver for a long time." *WirtschaftsWoche* similarly reported on September 24, 2015 that "[w]ithout 'Hacki's' blessing no model and definitely no engine went into production," and that "[t]he down to earth Westphalian is said to be at least as detail-obsessed as Winterkorn."

### 4. Volkswagen Admits that a Cultural Overhaul Is Needed to Prevent Future Scandal

122. VW AG's longstanding, ingrained culture of fear, control, and secrecy is well known, and insiders and observers alike have expressed their hope that the emissions cheating scandal will lead to more transparency and improved controls. For example, commenting on the Company's culture since Winterkorn was replaced by new CEO Matthias Müller ("Müller"), VW AG Management Board member Andreas Renschler told *Dow Jones Business News* in a February 23, 2016 interview that "[t]he difference is like night and day. . . . We all realize that the crisis gives us a huge opportunity to change the company." In a March 1, 2016 presentation by VW AG Management Board member Frank Witter, Volkswagen itself identified the need for a "New structure—Launching a more entrepreneurial & decentralized Group structure" and "New mindset—Profoundly changing the way we do things" as two of the Company's five top priorities, both of which are presently "in progress," along with "New destination—Re-evaluating what we do & re-defining our targets," which is targeted for mid-2016. The presentation also identified as key focus areas for VW AG moving forward, among other things, overhauling corporate culture to "create [a] modern corporate culture" with "[m]ore responsibility," "strengthen[ing] trust of customers authorities and media," strengthening corporate responsibility, "[r]evamp[ing]

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management style," and a "[n]ew clearer mission statement focused on transparency, authenticity and openness."

123. VW AG has admitted in a December 10, 2015 press release that the centralized control under Winterkorn was a key factor in the emissions scandal:

Parallel to overcoming the crisis, Volkswagen is also instituting a comprehensive new alignment that affects the structure of the Group, as well as its way of thinking and its strategic goals.

Volkswagen will be managed in a more decentralized fashion in the future, and its brands and regions will be granted more independence. The Group's Board of Management is fully focused on its core task: advancing the major, global issues for the future, as well as synergies, controls, and strategy. . . . All these structural changes ultimately aim to reduce managerial complexity and ensure that the Group can be effectively led over the long term.

- 124. The December 10 press release also stated that, as opposed to the Winterkorn regime, "[a]ccording to Mueller, the future will be about more open discussions, closer cooperation, and a willingness to allow mistakes if they are understood as an opportunity to learn. [Mueller] stated, 'We don't need yes-men, but managers and engineers who make good arguments in support of their convictions and projects . . . . People who follow their instincts and are not merely guided by the possible consequences of impending failure.'"
- 125. In the wake of the scandal, Volkswagen has also put in place structural changes designed to enhance compliance and accountability, further admitting that almost all of Winterkorn's senior management team needed to be replaced:

At an organizational level, . . . the Integrity & Law area will be represented as its own department on the Group's Board of Management in the future—a clear indication that these issues are extremely important to Volkswagen.

### B. Volkswagen's Growth Plans Rely Heavily on "Clean Diesel"

126. By 2005, it was clear to automakers that consumers' interest in reducing environmental impact could significantly affect car companies' future growth and market share. Many automakers had begun or were planning to develop and market fuel-efficient hybrid vehicles, such as Toyota's Prius, that produced low levels of environmentally harmful emissions

in comparison with other cars that were popular with consumers. Those increasingly popular hybrids, however, were perceived as boring and did not offer the exciting driving experience that many consumers wanted and had grown accustomed to.

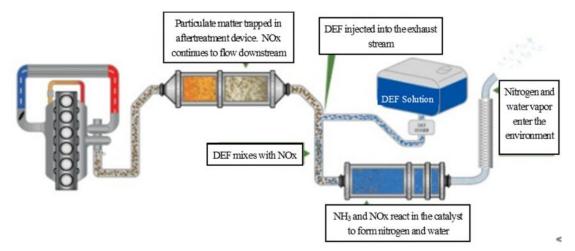
- 127. At the same time, Volkswagen sought to increase its US presence—its US market share in 2005 was only 2%—and capture much of the market for environmentally friendly cars, and to do so by avoiding the lagging performance that plagued hybrids. Moreover, diesel vehicles were and are historically much more widespread in Germany and throughout Europe than in the United States, with 50% of all new vehicles licensed in the European Union in 2014 being diesels. Volkswagen was looking to develop cars that it could sell widely in the United States and Europe. Against that backdrop, Volkswagen started down a path that it acknowledges led to the current emissions scandal: the Company made "a strategic decision to launch a large-scale promotion of diesel vehicles in the Unites States in 2005."
- 128. To reach that goal, and in an effort to produce and market powerful but environmentally friendly cars, Volkswagen spent millions of dollars to develop a "clean diesel" engine that would offer high performance alongside fuel efficiency and low emissions levels. However, at no point were Volkswagen's engineers able to successfully design a true, high-performance "clean diesel" engine. Rather, there was a tradeoff between emissions reduction and performance that the engineers could not work around. Steps to decrease emissions also negatively affected performance and imposed significant financial costs, while maintaining "fun-to-drive" aspects meant that emissions levels remained at unacceptably high levels.

### C. Reducing Harmful Emissions from Diesel Engines Poses Fundamental Obstacles

129. As industry experts recognize, there are fundamental difficulties in producing a fuel-efficient, high-performance, low-emissions diesel engine. Don Hillebrand, the director of energy systems research at Argonne National Laboratory and the former president of the Society for Automotive Engineers, explained in a *Livescience* article on September 24, 2015: "You have power, you have energy, you have emissions: You get to choose two of them." As is now clear,

the choice that Volkswagen made was for power and energy, at the cost of unacceptably high emissions levels.

- 130. There are different methods of reducing NOx emissions levels in diesel vehicles, and Volkswagen was initially divided over the method it would use. In 2005, when the Company started its push to develop high-performance, environmentally friendly diesel engines, the Volkswagen brand was headed by CEO Wolfgang Bernhard, a German auto industry veteran whom VW AG's then-CEO, Bernd Pischetsrieder, hired from Daimler. Volkswagen's Audi brand was headed by Defendant Winterkorn. Winterkorn, on one hand, and Bernhard, on the other, had dramatically different views on how best to develop a high-performance and environmentally friendly diesel engine.
- 131. Bernhard believed that Volkswagen's engines should utilize a selective catalytic reduction ("SCR") system to treat exhaust gases and reduce harmful NOx emissions. In particular, Bernhard promoted Volkswagen's use of an SCR system developed primarily by Daimler that involved injecting "diesel exhaust fluid" ("DEF"), containing urea, into the exhaust stream and converting NOx into nitrogen gas, water, and carbon dioxide. Mercedes marketed that system under the name "BlueTec." Bernhard licensed the BlueTec technology for use by Volkswagen. A diagram showing the SCR treatment process follows:



because they believed it would allow Volkswagen to keep pace with NOx emissions standards as

diesel engine incorporating BlueTec. Volkswagen was at that point committed to producing clean

diesel engines with BlueTec and, on January 2007, announced that the Company would introduce

a new model of the Jetta that featured a 2.0-liter BlueTec diesel four-cylinder engine. According

to Volkswagen, the new Jetta, which would be available to consumers in the spring of 2008, would

effective but expensive, and posed pragmatic obstacles. The BlueTec system would cost \$350 per

vehicle—a sum that VW AG finance officials said was too much at a time when a Company-wide

Bernhard and other Volkswagen managers advocated using SCR technology

By late 2006, Bernhard and the engineers he supervised had developed a prototype

As Automotive News Europe reported on September 27, 2015, the SCR system was

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they became stricter.

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meet emissions standards in all 50 US states.

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cost-cutting exercise was underway. BlueTec also required the installation of a DEF tank in each vehicle, and it required regular DEF refills at a dealer or service station. An additional draw back was that SCR adds weight to vehicles and takes up significant space, making it difficult to use in compact cars like Volkswagen's Golf and Jetta—among Volkswagen's best-selling models in the United States.

and the fact that it was developed by a competitor. As *Süddeutsche Zeitung* reported on October 4, 2015, Volkswagen insiders stated that "[w]hoever spoke up was shouted down" with regard to implementing SCR in Volkswagen's diesel vehicles, as "[t]hat was the culture of ex-boss Martin Winterkorn—and that of the technicians." An internal power struggle to chart Volkswagen's clean diesel strategy developed.

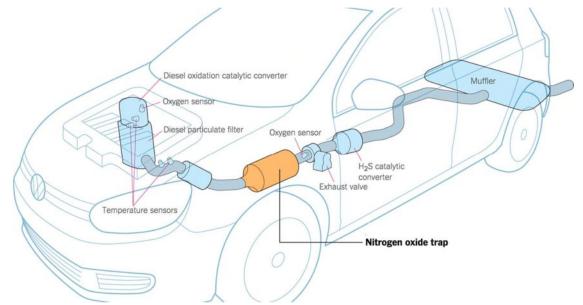
### D. Winterkorn Takes over Volkswagen and Installs His Closest Aides, Hackenberg and Hatz, as the Company's Top Engineers

136. As a result of that struggle, neither Bernhard nor BlueTec would last at Volkswagen for long. In December 2006, VW AG Chairman Piech pushed out Pischetsrieder. Bernhard left the

Company shortly afterwards. By early 2007, as Volkswagen continued its efforts to grow US sales through diesel vehicles, Piech had replaced Pischetsrieder as VW AG's CEO with Audi's Winterkorn. Winterkorn's stated goals were to triple Volkswagen's annual US sales figures over a 10-year period, and he was focused on expanding diesel-car ownership in the United States beyond the 5% of the US market that diesel vehicles then represented.

- 137. Winterkorn brought with him from Audi his two longtime, trusted colleagues, Hatz and Hackenberg, whom he installed as Volkswagen's top engineers. Winterkorn also brought Frank Tuch, the former head of quality control at Porsche, to serve as VW AG's chief quality officer and head of the Company's Group Quality Assurance beginning in September 2010. Winterkorn admired Tuch's work at Porsche, and as reported in *Automotive News Europe* on August 9, 2010, believed that Tuch would "bring us forward in the USA" by helping Volkswagen and Audi improve their performance both on the road and in industry surveys such as quality studies by J.D. Power and Associates. Tuch worked closely with Winterkorn, as the two met every Monday to discuss quality issues and often test drove Volkswagen vehicles together, as the *New York Times* reported on October 21, 2015.
- 138. Volkswagen's new top engineers had long opposed emissions-reducing measures that would detract from driving performance. As Hatz stated during a 2007 presentation on automotive technology hosted by VW AG in San Francisco, "[w]e will do what is possible, but we should keep the pleasure" so that cars are "fun to drive." Hatz added, "[i]t's not just about transport; our business, it's also about pleasure."
- Volkswagen's engineering decisions and at Hatz's insistence, the Company canceled its BlueTec licensing contract in what *Businessweek* described on October 21, 2015 as "a classic case of not-invented-here syndrome." In place of the SCR system, Hatz was tasked with designing and implementing a strategy focused on the use of NOx "traps" to reduce NOx emissions to permissible levels.

140. As *Businessweek* has reported, that decision "boxed Volkswagen engineers in as they tried to meet emissions targets and protect the driving experience and fuel efficiency." In contrast to the SCR system, NOx traps are cheaper and easier to implement, but also reduce fuel economy by as much as 4% and are far less effective at reducing emissions. NOx traps function as molecular sponges, trapping and absorbing NOx molecules as they are emitted. A burst of diesel fuel is then pumped into the NOx trap, which leads to the release of NOx. The NOx then moves into a catalytic converter that converts the molecules into water and nitrogen, as follows:



141. Notably, Volkswagen decided to introduce SCR technology into certain vehicle models during the Class Period. For example, beginning with the 2012 model year, the Passat was equipped with SCR technology, and an SCR system was introduced in numerous models beginning in 2015. However, Volkswagen still continued to equip those cars with defeat devices. That way, the SCR systems could function with lower amounts of urea than actually needed to adequately reduce NOx emissions, and consumers would not need to refill their DEF tanks between service checks.

E.

# Performance Clean Diesel Éngine and Is Forced to Delay the Introduction of the Jetta 142. It quickly became apparent that the Company was unable to produce a high-

Volkswagen Cannot Develop a High-

performance diesel engine that would meet emissions standards. Indeed, in 2006, the Company was already considering cheating on emissions tests in order to sell vehicles that produced emissions at unacceptably high levels. On April 26, 2016, the *New York Times* reported that investigators into Volkswagen's emissions scandal uncovered a PowerPoint presentation prepared by a top Volkswagen technology executive in 2006 laying out in detail how Volkswagen could cheat on emissions tests in the United States. The *Times* reported that people inside Volkswagen knew that its diesel engines were polluting significantly more than allowed, yet "company executives repeatedly rejected proposals to improve the emissions equipment." In fact, the entire Management Board led by Defendant Winterkorn "repeatedly rebuffed lower-ranking employees who submitted technical proposals for upgrading the emissions controls . . . because of cost."

- 143. In other words, the *Times* reported that in 2006, before the start of the Class Period, the VW AG Management Board, including Winterkorn, had actual knowledge that Volkswagen's diesel cars were unable to comply with emissions standards, yet refused to upgrade the systems because it would be too expensive. The more expensive equipment "would have made Volkswagen vehicles hundreds of dollars more expensive, without providing a benefit that customers could perceive. In the United States, even a modestly higher sticker price would have made it more difficult for Volkswagen to compete with rivals like Toyota and Honda."
- 144. Specifically, according to the *New York Times*'s April 26 article, VW AG engineers realized that the emissions equipment in their newest diesel engine would wear out too quickly if it were calibrated to meet US pollution standards. A technology expert at VW AG offered a solution in the PowerPoint presentation, which included a graph that explained the process for testing the amount of pollution spewing from a car. The pattern of those tests, the presentation said, was entirely predictable and a piece of code embedded in the software that controlled the

engine could recognize that pattern, activating equipment to reduce emissions just for testing purposes. The software evolved over the years and was later upgraded to detect other tell-tale signs of regulatory tests.

- 145. Hatz himself admitted, during the 2007 San Francisco presentation, that "[w]e can do quite a bit and we will do a bit, but 'impossible' we cannot do. . . . From my point of view, the C.A.R.B. is not realistic." Hatz described proposed CARB emissions standards as "nearly impossible for us," and lamented that "[p]erhaps we have just small Korean and Japanese cars in this country."
- 146. VW AG has admitted that "[t]hroughout 2007, various technical problems arose with the US'07 project that led to internal discussions and disagreements among members of the VW AG team that was primarily responsible for ensuring vehicles met U.S. emissions standards. Those disagreements over the direction of the project were expressly articulated during a contentious meeting on or about October 5, 2007, over which Supervisor C [Hadler] presided. As a result of the meeting, Supervisor C authorized Supervisor F [Dorenkamp] and his team to proceed with the US'07 project despite knowing that only the use of the defeat device software would enable VW diesel vehicles to pass U.S. emissions tests." (SOF ¶37.)
- TDI looming, pressure was mounting on the Company and its engineers to manufacture an engine to satisfy market demand and the Company's strategy. But under Hatz and Hackenberg, Volkswagen could not do so. Accordingly, on November 8, 2007, VWGoA sent a letter to its dealers announcing that the launch of the new Jetta TDI was being pushed back to the summer of 2008 due to a "technical issue that was found during the later stages of durability testing."
- 148. Industry publications recognized at the time that the announced delay was due to Volkswagen's inability to develop a diesel engine that met emissions standards. For example, on November 9, 2007, *Cars.com* reported that "[p]art of Volkswagen's trouble lies in the 50-state test. The U.S. has some of the strictest emissions standards for diesel vehicles, and in order for automakers to sell their cars in all 50 states, it must meet emissions standards set forth in every

state, including California and its stringent Air Resources Board." And *Autoblog.com* noted on November 8, 2007 that "[t]he complexity that must be involved to achieve this feat is likely considerable, especially without the use of a urea injection system."

- 149. *Cars.com* further reported that "all eyes are on Volkswagen and its new Jetta," and that "[c]onsumer interest certainly seems piqued." Reports also stated that Volkswagen dealers were disappointed due to the high consumer anticipation for the new Jetta TDI, and that one dealer said that three out of every five calls he received at the time were about the Jetta TDI.
- ability to grow its US business through diesel sales was a tremendous opportunity for Volkswagen, but also that technological obstacles might prove insurmountable. RBS reported on April 28, 2011, as part of a "SWOT" (strengths/weaknesses/opportunities/threats) analysis, that a key opportunity for Volkswagen was to "convert the US to diesel," while a threat was the "reversal of trend towards diesel." RBS went on to report on October 17, 2011 that since 2007, "VW has . . . made developing the US business a cornerstone of its global strategy," "especially with the TDI diesel option." Deutsche Bank reported on January 16, 2013 that "Rising Diesel sales in the US have become a driver for VW as overall Diesel sales grew 30% last year," and "VW group has almost 75% of the US Diesel market share."
- Volkswagen's ability to grow its US operations. In a September 20, 2011 analyst report, Morgan Stanley asked, "What About US Fuel Standards?" Morgan Stanley recognized that "one of the biggest challenges VW faces in the US is that of tightening emissions legislation (where VW was one of the few notable exceptions to OEMs recently supporting proposals for tighter standards)," and that "emissions remain a serious headwind to the recovery potential of VW's US business." And on October 9, 2012, Credit Suisse reported that "[e]fficient and low emissions vehicles will be increasingly important going forward," and that the then-new TDI Golf was "designed from day one to meet GLOBAL fuel emissions standards."

ability to meet emissions standards throughout the Class Period. Analysts were consistently impressed with Volkswagen's purported technological accomplishments and the potential for future growth driven by clean diesel vehicle sales. On July 3, 2014, Barclays reported that "[e]missions standards have tightened globally and will continue to do so," and auto companies "believe non-compliance (penalized by fines) is not an option due to the negative impact on brand." Barclays specifically observed that tightening NOx emissions standards "create opportunities for new combustion engineering approaches that can minimize engine emissions and thereby reduce the need for costly after-treatment solutions." Moreover, Barclays applauded Volkswagen for "see[ing] environmental leadership as a key differentiator and a core competence."

### F. Under Pressure to Bring Clean Diesel Vehicles to Market, Volkswagen Installs Defeat-Device Software

- 153. Volkswagen's culture of control and results at any cost led to Volkswagen's decision to use illegal defeat-device software to pass emissions testing and sell its diesel vehicles in the United States. Unable to find or develop any legitimate solution to design a TDI engine that met emissions standards, Volkswagen moved forward with a scheme that enabled its cars to pass emissions testing through obfuscation and subterfuge: Volkswagen started installing defeat-device software in its purportedly "clean diesel" vehicles.
- 154. Volkswagen's vehicles, like all modern cars, include and are largely run through sophisticated computer systems—including electronic diesel control ("EDC") systems. In 2006, German automotive parts supplier Bosch—the world's largest supplier of automotive products such as controls, electronics, brakes, and fuel systems—introduced the EDC17, an EDC system that Bosch described as "important for effective, low-emission combustion."
- 155. Bosch supplied Volkswagen with EDC17 systems, which Volkswagen installed in its diesel vehicles. Although many automakers purchased the EDC17 from Bosch, the actual software system varied from maker to maker and engine to engine. As Bosch's promotional materials explained, "[b]ecause the computing power and functional scope of the new EDC17 can

be adapted to match particular requirements, it can be used very flexibly in any vehicle segment on all the world's markets. In addition to controlling the precise timing and quantity of injection, exhaust gas recirculation, and manifold pressure regulation, it also offers a large number of options such as the control of particulate filters or systems for reducing nitrogen oxides."

156. Bosch accordingly worked with manufacturers, including Volkswagen, to tailor the EDC17 for specific engines. Volkswagen worked with Bosch to design the software so that its cars—which did not meet applicable emissions standards—would nevertheless pass emissions testing. The defeat-device software that Volkswagen installed was used primarily in conjunction with its EA189 model engine, installed in approximately 11 million vehicles worldwide—including 5 million Volkswagen brand vehicles, 2.1 million Audis, 1.2 million Skodas, and 1.8 million light commercial vehicles. Specific models that used the EA189 engine were the Volkswagen Jetta, Jetta SportWagen, Golf, and Beetle, as well as the Audi A3.

157. In all, Volkswagen altered the illegal software to use with four different engine types, including the EA189. In other words, Volkswagen made several changes to its defeat-device software, which Volkswagen intentionally and actively updated numerous times to allow different engine types to cheat and thereby pass emissions testing. As *Reuters* reported on October 17, 2015, a US official investigating Volkswagen explained that "VW would have had to reconfigure the software for each generation of engines." And Defendant Horn himself admitted to the US Congress on October 8, 2015 that, "[s]ince the standards are different, my understanding is that the defeat device is in those (European) cars as well." As *Reuters* reported on October 7, 2015, "[s]ome industry experts and analysts said several versions of the defeat device raised the possibility that a range of employees were involved. Software technicians would have needed regular funding and knowledge of engine programs, they said."

158. Significantly, VW AG attempted to improve the defeat-device software to avoid detection. VW AG has admitted that "[f]ollowing the launch of the Gen 1 2.0 Liter Subject Vehicles in the United States, Supervisors C [Hadler] and F [Dorenkamp], and others, worked on a second generation of the vehicles (the 'Gen 2'), which also contained software designed to detect,

evade and defeat U.S. emissions tests. The Gen 2 2.0 Liter Subject Vehicles were launched in the United States in or around 2011." (SOF ¶46.) "In or around 2012, hardware failures developed in certain of the 2.0 Liter Subject Vehicles that were being used by customers on the road in the United States. VW AG engineers hypothesized that vehicles equipped with the defeat device stayed in 'dyno' mode (i.e., testing mode) even when driven on the road outside of test conditions. Since the 2.0 Liter Subject Vehicles were not designed to be driven for longer periods of time in 'dyno' mode, VW AG engineers suspected that the increased stress on the exhaust system from being driven too long in 'dyno' mode could be the root cause of the hardware failures." (SOF ¶47.)

159. VW AG further admitted that "[i]n or around July 2012, engineers from the VW Brand Engine Development department met, in separate meetings, with Supervisors A [Neuβer] and E [Gottweis] to explain that they suspected that the root cause of the hardware failures in the 2.0 Liter Subject Vehicles was the increased stress on the exhaust system from being driven too long in 'dyno' mode as a result of the use of software designed to detect, evade and defeat U.S. emissions tests. To illustrate the software's function, the engineers used a document. Although they understood the purpose and significance of the software, Supervisors A and E each instructed the engineers who presented the issue to them to destroy the document they had used to illustrate the operation of the defeat device software." (SOF ¶48.) As alleged in ¶¶17-19, 94, 244-47, and 282, 8 both Neuβer and Gottweis were senior executives and confidants of Defendant Winterkorn.

160. VW AG also admitted that "VW AG engineers . . . then sought ways to improve [the defeat device's] operation in existing 2.0 Liter Subject Vehicles to avoid the hardware failures. To solve the hardware failures, VW AG engineers decided to start the 2.0 Liter Subject Vehicles in the "street mode" and, when the defeat device recognized that the vehicle was being tested for compliance with U.S. emissions standards, switch to the 'dyno mode.' To increase the likelihood that the vehicle in fact realized that it was being tested on the dynamometer for compliance with U.S. emissions standards, the VW AG engineers activated a 'steering wheel angle recognition'

<sup>&</sup>lt;sup>8</sup> References to "¶ \_\_" are to paragraphs in this Complaint unless otherwise specified.

feature. The steering wheel angle recognition interacted with the software by enabling the vehicle to detect whether it was being tested on a dynamometer (where the steering wheel is not turned), or being driven on the road." (SOF ¶49.)

- 161. VW further admitted that "[c]ertain VW AG employees again expressed concern, specifically about the expansion of the defeat device through the steering wheel angle detection, and sought approval for the function from more senior supervisors within the VW AG Engine Development department. In particular, VW AG engineers asked Supervisor A [Neuβer] for a decision on whether or not to use the proposed function in the 2.0 Liter Subject Vehicles. In or about April 2013, Supervisor A authorized activation of the software underlying the steering wheel angle recognition function. VW employees then installed the new software function in new 2.0 Liter Subject Vehicles being sold in the United States, and later installed it in existing 2.0 Liter Subject Vehicles through software updates during maintenance." (SOF ¶50.)
- 162. Indeed, *Bild* reported on October 3, 2015 that VW AG's present internal investigation has shown that the Company first decided to install illegal defeat-device software in its vehicles in 2008, shortly before it commenced mass production of the EA189 engine. VW AG made that decision "because there was no way at the time to reconcile meeting emission standards within the targeted cost of the engine. . . . Otherwise, the company would have to abandon the introduction of the engine, development of which was begun in 2005."
- 163. The *Wall Street Journal* likewise reported on October 5, 2015 that, as early as 2006, senior VW AG engineers recognized and publicly stated that the Company could not produce high-performance diesel vehicles that met applicable emissions standards. Further, regulators suspected and were concerned about Defendants' possible use of defeat devices as early as 2008. On October 4, 2015, *Süddeutsche Zeitung* reported that it was in possession of documents showing that US authorities have been questioning Volkswagen cars' emissions since at least 2008. Specifically, according to *Süddeutsche Zeitung*, CARB issued an "Executive Order" in June 2008 demanding a statement from VW AG that no defeat device was installed in the engines of Volkswagen's cars.

Otherwise, the letter states, CARB would withdraw its certification of the vehicles and assess a penalty of \$5,000 per car.

- 164. To understand how VW AG used defeat-device software to pass emissions testing, and for that matter why regulators for years did not identify Volkswagen's cheating, it is helpful to understand the regulatory certification process.
- 165. The EPA, CARB, and other US and European regulatory agencies do not conduct emissions testing themselves, which would allow for stricter oversight but would arguably threaten an increased burden on both regulators and automakers. Instead, automakers conduct their own emissions testing, and then send those results to the regulators, who will generally rubber stamp the makers' results and certify the vehicles.
- 166. As a result, there are both incentives and opportunities for cars to be certified—and ultimately approved for sale—even if their actual emissions levels are above those reported to the regulators. With virtually no risk that the regulators will conduct their own testing, automakers may report results secure in the belief that the results will not be challenged. In addition, testing conditions may vary between a carmaker's lab and the regulators', providing an explanation for certain variation in results. And automakers have been known to employ a bevy of tricks to manipulate testing results, such as low-resistance tires and covering cracks between panels to reduce wind resistance.
- 167. Moreover, emissions testing is conducted in laboratory conditions, rather than in real-world driving conditions. Even if results from testing in a lab are more theoretical than based in practice or fact, test results for different vehicles under the same lab conditions should be easy to compare to each other. Lab conditions can eliminate factors such as weather and traffic that threaten to distort results. However, whatever the reasons for using lab tests rather than real-world tests to determine emissions levels, the results that carmakers report to regulators necessarily vary from the actual emissions the vehicles will produce on the road.
- 168. To test a vehicle's emissions, automakers put the car on rollers and attach it to a dynamometer, which is a device used to provide a simulated experience mimicking certain

specified driving conditions (e.g., stop-and-go urban traffic, high-speed driving). The maker measures and reports emissions levels under those conditions. Regulators provide automakers with the testing specifications in advance, and the makers report results after running the tests.

- 169. That emissions-testing regime enabled VW AG's emissions-cheating scandal by creating ideal circumstances for the Company to produce manipulated results, which it could then self-report to regulators without fear of reprisal. VW AG's engineers tailored the EDC17 software in the Company's TDI engines to recognize, based on factors including wheel movement (including that only the front two wheels were moving, not the rear wheels), engine runtime, and steering wheel positioning, when a car with that software was undergoing testing. Specifically, when the car was undergoing emissions testing, lines of code written into the control software produced by Bosch would cause the car's engine to switch into a "dyno calibration" mode or "dyno mode." In dyno mode, the car would produce lower emissions levels (that met EPA and CARB standards) by, among other things, adjusting air-fuel ratios and exhaust flows. However, Volkswagen's cars could operate at that level only with significantly reduced power and performance. Independent testing has shown that the cars in dyno mode had approximately 10.5% less power than otherwise.
- 170. When testing ended—i.e., when the cars were actually on the road—the software switched the cars back to "road calibration" mode, and the cars produced heightened levels of NOx emissions, up to **40 times** the allowable limit under federal law.
- 171. Volkswagen concealed from the EPA, CARB, and all other regulators that its EDC17 systems included lines of code that could detect when the vehicles were being tested and change the cars' performance and emissions levels at those times. As discussed above, the software thus constitutes an illegal defeat device under US law.
- 172. Critically, VW AG has admitted that "VW employees met with the EPA and CARB to seek the certifications required to sell the Subject Vehicles to U.S. customers. During these meetings, some of which Supervisor F [Dorenkamp] attended personally, VW employees misrepresented, and caused to be misrepresented, to the EPA and CARB staff that the Subject

Vehicles complied with U.S. NOx emissions standards, when they knew the vehicles did not. During these meetings, VW employees described, and caused to be described, VW's diesel technology and emissions control systems to the EPA and CARB staff in detail but omitted the fact that the engine could not meet U.S. emissions standards without using the defeat device software." (SOF ¶41.) VW AG also admitted that "Supervisors A-F, and others, knew that if they had told the truth and disclosed the existence of the defeat device, VW would not have obtained the requisite Certificates for the Subject Vehicles and could not have sold any of them in the United States." (SOF ¶42.)9

- 173. At the same time, the Company defrauded investors by misrepresenting Volkswagen's compliance with the law and its cars' ability to meet emissions standards, and by overstating the Company's profits by failing to properly reserve for provisions arising out of the diesel scandal, among other things.
- 174. The environmental and financial impact of Volkswagen's emissions cheating has been felt both in the United States and throughout the world. Although Volkswagen's sales of 585,000 TDI vehicles with defeat devices in the United States were only a portion of the Company's 11 million such sales worldwide, the US sales were of particular importance. Expanding diesel sales in the United States was a central focus for Volkswagen as it pursued aggressive growth plans. Moreover, due to the legal and regulatory regime in the United States, including stringent NOx emissions standards as well as laws providing significant redress to wronged consumers and others, Volkswagen has incurred billions of dollars of liability based on its US TDI sales alone.
- 175. The full impact of Volkswagen's emissions cheating, however, can be understood only in the context of Volkswagen's sales of millions of cars with illegal defeat devices in Europe and around the world. Volkswagen was able to obtain approvals for and sell over 8 million cars

<sup>&</sup>lt;sup>9</sup> "Certificates" is defined in the admitted Statement of Facts to refer to certificates of conformity and executive orders issued by the EPA and CARB authorizing vehicles to be sold in the United States. (SOF ¶25.)

with defeat devices throughout Europe by taking advantage of European emissions-testing procedures that largely rely on manufacturers to provide honest information regarding compliance with each member country's testing regime and standards. As in the United States, European emissions testing relies on manufacturers to self-report results, and testing is conducted only under controlled conditions, not under real-world, in-use conditions. Further, European manufacturers like Volkswagen can themselves decide in which country to have their vehicles tested, with resulting approvals valid throughout the European Union. According to Peter Mock, ICCT's managing director for Europe, "[t]he possibility for vehicle manufacturers to cherry-pick national type-approval authorities and technical service companies to witness vehicle emissions testing creates a potential conflict of interest," as national approval authorities may seek to attract manufacturers by having more loosely administered testing regimes.

emissions levels without detection. Indeed, Bosch was concerned that VW AG was going to use the EDC17 system Bosch supplied in an illegal manner, to produce artificially low emissions levels in testing. According to a September 27, 2015 report in *Bild*, in 2007—eight years before VW AG's emissions cheating became public—Bosch sent a letter to VW AG's "top circles" informing the Company that using the software for the planned application of reducing emissions during testing was illegal. According to Bosch, the software it provided was intended only for internal testing purposes, not for regular, on-road driving. But VW AG affirmatively modified the module to detect when a vehicle was undergoing laboratory emissions testing and then shut down when the vehicle was on the road. The *Bild* article reported that "[t]he circle of those in the know at VW must have been larger than assumed so far if even the supplier knew about the ploy."

177. Bosch has denied any actual knowledge of or responsibility for VW AG's use of the defeat device embedded in Bosch's software, stating in a September 24, 2015 press release that "[a]s is usual in the automotive supply industry, Bosch supplies these components to the automaker's specifications. How these components are calibrated and integrated into complete vehicle systems is fundamentally the responsibility of each automaker."

### G. Volkswagen Markets and Sells Its "Clean Diesel" Cars

- 178. Having worked with Bosch to design and implement defeat devices in its cars, thereby enabling Volkswagen to pass emissions tests even when its cars produced unacceptably high levels of NOx emissions, Volkswagen then put its business strategy to work. Beginning in 2008 with the model-year 2009 Volkswagen Jetta and Touareg models and the 2009 Audi Q7, Volkswagen began marketing and selling noncompliant diesel vehicles (branded as "clean diesel" or "TDI") while conducting a massive, years-long advertising and public relations campaign championing its purportedly successful "clean diesel" design. Volkswagen's advertisements touted its "clean diesel" vehicles, powered by 2.0 liter TDI four-cylinder engines, as environmentally responsible and fun to drive, "confirming Volkswagen's role as a pioneer in diesel technology."
- 179. VW AG has since admitted that "Supervisors A [Neuβer] and C [Hadler] and others marketed, and caused to be marketed, the Subject Vehicles to the U.S. public as 'clean diesel' and environmentally-friendly, when they knew the Subject Vehicles were intentionally designed to detect, evade, and defeat U.S. emissions standards." (SOF ¶44.)
- 180. In language on its website that it has since taken down, Volkswagen prominently stated: "This ain't your daddy's diesel. Stinky, smoky, and sluggish. Those old diesel realities no longer apply. Enter TDI Clean Diesel. Ultra-low-sulfur fuel, direct injection technology, and extreme efficiency. We've ushered in a new era of diesel."

# This ain't your daddy's diesel.

Stinky, smoky, and sluggish. Those old diesel realities no longer apply. Enter TDI Clean Diesel. Ultra-low-sulfur fuel, direct injection technology, and extreme efficiency. We've ushered in a new era of diesel.

- · Engineered to burn low-sulfur diesel fuel
- · "Common Rail" direct injection system

View key fuel efficiency info ?



181. VW AG and its subsidiaries specifically represented that their cars' NOx traps were "[t]he most effective measure to reduce nitrogen oxides (NOx) with an internal combustion engine." Such boasting was part of a broad marketing scheme designed to grow the Volkswagen Group's US market share by expressly focusing on the low environmental impact of its TDI cars.

- 182. In 2008 and 2009, Volkswagen and its subsidiaries claimed that their vehicles had the "world's cleanest diesel engines" that complied with the world's "most demanding emissions laws." Volkswagen brochures stated that the "[c]lean diesel vehicles meet the strictest EPA standards in the U.S. Plus, TDI technology helps reduce sooty emissions by up to 90%, giving you a fuel-efficient and eco-conscious vehicle."
- 183. VW AG also boasted to the auto industry that it had successfully produced a high-performance, low-emissions, fuel-efficient diesel engine. In 2008, a group of VW AG engineers gave a presentation titled "Volkswagen's New 2.0 l TDI Engine Fulfills the Most Stringent Emission Standards" at an industry conference in Vienna, and published papers touting their purported achievement in a technical journal focused on engine technologies.
- 184. Similarly, in an October 9, 2009 interview, VWGoA's then-Vice President of Sales and Aftersales, Mark Barnes, told *Business Insider* that VW AG and VWGoA's 2.0 liter TDI

engine was better for the environment than hybrid cars, because it had a "fantastic power train" that "gives very good fuel economy" and "it's also good for the environment because it puts out 25% less greenhouse gas emissions than what a gasoline engine would[,]... cuts out the particulate emissions by 90% and the emissions of nitrous oxide are cut by 95%[,]...[and is c]lean enough to be certified in all 50 states."

185. In response to the question, "How do you re-brand something that's dirty like diesel as something that's green?," Barnes responded:

The way we've gone about it is through a number of communication pieces. One of them we've used is TDI Truth & Dare. It is a very good website that compares some older diesels versus the current TDI clean diesel. And one of the things we do is we put coffee filters over the exhaust pipes of both cars. We let them run for five minutes and after they are done, we take them off and the older diesel product (not a VW diesel) has a round sooty spot on that coffee filter. Ours is very clean. In fact they actually make coffee out of the filter that was attached to the Volkswagen clean diesel tail pipe and they drink it.

- 186 Volkswagen's celebratory representations regarding its TDI cars' purported low emissions and high performance dominated Volkswagen's marketing materials for years.
- For example, in a 2008 press release, VWGoA publicized that the "Internal 187. Revenue Service has issued a certification letter affirming that the" Jetta TDI sedan and SportWagen "qualify for the Advanced Lean Burn Technology Motor Vehicle income tax credit." The press release further stated:

Jetta TDI sedan and SportWagen showcase the best of both worlds, an alternative fuel vehicle with no compromises. Fuel efficiency, performance and convenience come standard with the 50-state compliant Jetta TDI sedan and SportWagen models, which meet the most stringent emissions standards in California.

188. AoA similarly ran ads representing that Audi TDI vehicles would "protect the environment" because diesel is "no longer a dirty word":



189. In one memorable television ad for Audi cars that ran during the 2010 Super Bowl, the "green police" arrested numerous individuals for such "offenses" as using plastic bottles and incandescent lightbulbs rather than more environmentally friendly options. At a roadblock, the green police stopped numerous vehicles, but singled out one, remarking that "we've got a TDI here—CleanDiesel." That car was allowed to pass unobstructed, with an officer telling the driver "You're good to go, sir."

190. Such representations about the high performance and low environmental impact of Volkswagen's TDI models continued throughout the Class Period. In a marketing brochure for the 2014 Jetta TDI, Volkswagen claimed that the vehicle surpassed numerous competing vehicles in fuel efficiency, and also "has lower CO2 emissions compared to 90% of other vehicles' engines. So every getaway you make will be a cleaner one."

2.0L TDI Clean Diesel engine. Engineered with the idea that less is more. The Jetta TDI has lower CO<sub>2</sub> emissions compared to 90% of other vehicles." So every getaway you make will be a cleaner one.

191. Defendants' advertising continued to emphasize that their TDI vehicles did not pose any tradeoff of performance for the sake of reduced emissions. In a sales brochure for the 2015 Golf, the Company stated that "[w]ith the 2.0L TDI engine, you'll appreciate every fuel-efficient mile with the EPA-estimated 45 hwy mpg. But that's only half the story. Step on the pedal and feel the 236 lb-ft of torque and let the performance tell the other half."

192. In other words, VW AG and its subsidiaries made their TDI models' purported low emissions and high performance a focal point of their advertising strategy for years. In reality, however, their emissions levels were as high as 40 times the legal limit, and the Company employed defeat devices to manipulate emissions tests.

## H. Volkswagen's TDI Marketing Scheme Was Highly Successful and Profitable

193. As discussed above, in 2005 and 2006, VW AG sought to develop and implement a plan to grow its business dramatically, especially in the United States, with a strong focus on environmentally friendly, low-emissions diesel vehicles. By illegally skirting emissions standards while touting manipulated testing results, Volkswagen met and, indeed, surpassed its goals.

194. In 2007, Volkswagen sold approximately 230,000 cars in the United States, exceedingly few of which were diesel vehicles. By 2013, Volkswagen brands sold over 400,000 vehicles in the United States, including more than 111,000 diesel vehicles. Indeed, with a 70% share of the North American diesel automobile market in 2014, Volkswagen sold more diesel cars in the United States than every other brand combined. Overall, diesel sales represented 26% of VW AG's US sales, versus a US industry-wide diesel penetration of less than 3%.

195. VW AG has also admitted that it sold 8.5 million diesel vehicles in Europe that did not comply with European emissions standards and that approximately 11 million vehicles were affected worldwide. Diesel sales in Europe were highly important to Volkswagen because diesels accounted for more than half of all European car registrations in 2012–2014. In Europe in 2014, diesels accounted for 56% of Volkswagen brand sales, 72% of Audi brand sales, and 43% of Porsche brand sales.

196. Beyond the sheer numbers of cars sold, VW AG also profited handsomely from selling its TDI vehicles because Volkswagen charged consumers a significant premium for the TDI models of its cars, compared to the standard gasoline-powered models of those same vehicles. For example, in the United States for the Passat, between 2012 and 2015, the TDI model had a manufacturer suggested retail price ("MSRP") ranging from \$5,380 to \$5,755 more than the MSRP for the standard model. For the Jetta SportWagen, between 2009 and 2015, the TDI model had an MSRP ranging from \$4,795 to \$5,570 more than the standard model. For the Beetle, between 2009 and 2015, the TDI model had a premium ranging from \$3,500 to \$4,600 more than the standard model. And for the Jetta, between 2009 and 2015, the TDI model had an MSRP ranging from \$4,755 to \$7,445 more than the standard model.

197. In all, Volkswagen sold approximately 585,000 TDI vehicles in the United States, including from the Audi and Porsche brands, that did not meet EPA and CARB emissions standards, as well as 11 million diesel vehicles that were equipped with defeat devices globally. The affected vehicle models are:

MAKE	MODEL	YEAR(S)
Audi	A3	2010–2015
Audi	A6 Quattro	2014–2016
Audi	A7 Quattro	2014–2016
Audi	A8/A8L	2014–2016
Audi	Q5	2014–2016
Audi	Q7	2009–2016
Porsche	Cayenne	2013–2016
Volkswagen	Beetle, Beetle Convertible	2013–2015
Volkswagen	Golf	2010–2015
Volkswagen	Golf SportWagen	2015
Volkswagen	Jetta, Jetta SportWagen	2009–2015

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Volkswagen	Passat	2012–2015
Volkswagen	Touareg	2009–2016

198. Defendants' representations about their TDI vehicles attracted consumers in other ways as well. Among other things, Defendants successfully lobbied the US government to provide tax credits for purchasers of many of their TDI cars, resulting in an earmark of at least \$78 million for TDI Jetta purchasers in 2009 and 2010 alone. Defendants also claimed that their TDI models "typically have a higher resale value versus comparable gasoline vehicles." <sup>10</sup>

### I. Volkswagen Gets Caught Cheating and Fails to Correct Its Emissions Noncompliance, Despite Recalling 500,000 Cars

199. VW AG has admitted that "[i]n or around March 2014, certain VW employees learned of the results of a study undertaken by [WVU] and commissioned by [ICCT]. The ICCT study identified substantial discrepancies in the NOx emissions from certain 2.0 Liter Subject Vehicles when tested on the road compared to when these vehicles were undergoing EPA and CARB standard drive cycle tests on a dynamometer. The results of the study showed that two of the three vehicles tested on the road, both 2.0 Liter Subject Vehicles, emitted NOx at values of up to approximately 40 times the permissible limit applicable during testing in the United States." (SOF ¶52.)

200. VW AG also admitted that "[f]ollowing the ICCT study, CARB, in coordination with the EPA, attempted to work with VW to determine the cause for the higher NOx emissions in the 2.0 Liter Subject Vehicles when being driven on the road as opposed to on the dynamometer undergoing standard emissions test cycles. To do this, CARB, in coordination with the EPA,

<sup>&</sup>lt;sup>10</sup> The "Subject Vehicles" are defined in the admitted Statement of Facts as the model year ("MY") 2009-2015 VW Jetta, MY 2009-2014 VW Jetta Sportwagen, MY 2010-2015 VW Golf, MY 2015 VW Golf Sportwagen, MY 2010-2013 and 2015 Audi A3, MY 2013-2015 VW Beetle and VW Beetle Convertible, MY 2012-2015 VW Passat, MY 2009-2016 VW Touareg, MY 2009-2015 Audi Q7, MY 2014-2016 Audi A6 Quattro, MY 2014-2016 Audi A7 Quattro, MY 2014-2016 Audi A8L, and MY 2014-2016 Audi Q5. (SOF ¶24-25.) The "Porsche Vehicles" are defined in the admitted Statement of Facts as the MY 2013-2016 Porsche Cayenne diesel vehicles. (SOF ¶26.)

repeatedly asked VW questions that became increasingly more specific and detailed, as well as conducted additional testing themselves." (SOF ¶53.)

- 201. VW AG further admitted that "[i]n response to learning about the results of the ICCT study, engineers in the VW Brand Engine Development department formed an ad hoc task force to formulate responses to questions that arose from the U.S. regulators. VW AG supervisors, including Supervisor A [Neuβer], Supervisor D [Eichler], and Supervisor E [Gottweis], and others, determined not to disclose to U.S. regulators that the tested vehicle models operated with a defeat device. Instead, Supervisors A, D, and E, and others decided to pursue a strategy of concealing the defeat device in responding to questions from U.S. regulators, while appearing to cooperate." (SOF ¶54.)
- 202. VW AG admitted that "[t]hroughout 2014 and the first half of 2015, Supervisors A [Neuβer], D [Eichler], and E [Gottweis], and others, continued to offer, and/or cause to be offered, software and hardware 'fixes' and explanations to U.S. regulators for the 2.0 Liter Subject Vehicles' higher NOx measurements on the road without revealing the underlying reason—the existence of software designed to detect, evade and defeat U.S. emissions tests." (SOF ¶55.)
- 203. According to the Second Superseding Indictment, on or about April 15, 2014, Schmidt forwarded Gottweis a copy of the ICCT presentation, and an email chain in which a VW employee stated, "[s]ome presenters indicated that they suspected cheating, where the vehicle recognizes it is an [sic] a dyno and runs different calibration that [sic] what it runs in actual driving. We will have to be careful with this going forward." (SSI ¶72.)
- 204. VW AG has admitted that "[o]n or about April 28, 2014, members of the VW task force presented the findings of the ICCT study to Supervisor E [Gottweis], whose supervisory responsibility included addressing safety and quality problems in vehicles in production. Included in the presentation was an explanation of the potential financial consequences VW could face if the defeat device was discovered by U.S. regulators, including but not limited to applicable fines per vehicle, which were substantial." (SOF ¶56.)

205. The Second Superseding Indictment alleges that "[o]n or about May 9, 2014, Schmidt sent an email to a VW employee, stating, 'Are you crazy? Recall the email,' in response to the VW employee's original email that read: 'As mentioned orally, VW currently in [North American Region] has the problem of high off cycle emissions, that the EPA has now found out about and we must respond. Oliver Schmidt as head of EEO plans to speak directly with [a VW supervisor] here in Herndon at the end of May. I cannot tell you anything before that because the investigations are still underway in [Wolfsburg]. Dr. Neusser is directly involved in it as head of development." (SSI ¶74 (second, third, and fourth alterations in original).)

206. VW AG has admitted that "[o]n or about May 21, 2014, a VW AG employee sent an email to his supervisor, Supervisor D [Eichler], and others, describing an 'early round meeting' with Supervisor A [Neuβer], at which emissions issues in North America for the Gen 2 2.0 Liter Subject Vehicles were discussed, and questions were raised about the risk of what could happen and the available options for VW. Supervisor D responded by email that he was in 'direct touch' with the supervisor in charge of Quality Management at VW AG and instructed the VW AG employee to 'please treat confidentially' the issue." (SOF ¶57.)

207. According to the Second Superseding Indictment, "[o]n or about May 22, 2014, GOTTWEIS sent a VW AG executive a memorandum describing a timeline of events with CARB after the ICCT study. GOTTWEIS stated that a full explanation could not be provided to authorities and it could be assumed that the authorities would test the vehicles for defeat devices. GOTTWEIS stated that even new software would not be able to make the cars fully compliant." (SSI ¶75.)

208. VW AG has admitted that "[o]n or about October 1, 2014, VW AG employees presented to CARB regarding the ICCT study results and discrepancies identified in NOx emissions between dynamometer testing and road driving. In response to questions, the VW AG employees did not reveal that the existence of the defeat device was the explanation for the discrepancies in NOx emissions, and, in fact, gave CARB various false reasons for the discrepancies in NOx emissions including driving patterns and technical issues." (SOF ¶58.)

209. With the EPA's and CARB's permission, VWGoA agreed on December 2, 2014 to recall approximately 500,000 model-year 2009 to 2014 vehicles whose actual emissions deviated significantly from test results, so that VWGoA could implement a proposed "recalibration fix" to its engine software. VWGoA claimed that the voluntary recall would allow it to fix the problem of real-world elevated NOx emissions levels as compared to test levels, and "CARB cautioned VW that if our confirmatory testing showed that the fix did not address the on-road NOx issues, they would have to conduct another recall."

- 210. When VWoA notified car owners of the recall, it did not disclose that the subject vehicles contained defeat-device software, or that they produced unacceptably high emissions levels. Rather, VWoA sent a letter telling owners that "[t]he vehicle's engine management software has been improved," and dealers would install a software upgrade "to assure your vehicle's tailpipe emissions are optimized and operating efficiently." That letter notified owners of a purported issue where the cars' malfunction indicator light would turn on, and warned owners that if the light "illuminated for any reason, the vehicle will not pass an IM [inspection and maintenance] emissions inspection in some regions."
- 211. Beginning in mid-April 2015, CARB conducted follow-up testing, which showed that the recalled cars continued to exceed emissions limits. Although "testing showed that the recall calibration did reduce the emissions to some degree[,] NOx emissions were still significantly higher than expected." For vehicles that were equipped with SCR technology, the urea levels introduced were "not sufficient to keep NOx emission levels from rising throughout the cycle," which "resulted in uncontrolled NOx emissions."
- 212. As alleged in the Second Superseding Indictment, "[o]n or about May 12, 2015, [Jürgen] PETER sent an email to VW AG employees referencing on-road emissions measurements by CARB in mid-April through June. PETER proposed possible misleading and false arguments to present to CARB as to why the vehicles were not passing the emissions tests on the road." (SSI ¶78.) "On or about June 23, 2015, PETER sent another email to VW AG employees reiterating

that VW AG needed to come up with 'good arguments' to counter the questions from the U.S. regulators." (SSI ¶79.)

- 213. In an email dated July 21, 2015, Defendant Horn conveyed the urgency of the CARB situation to multiple VW AG board members and executives in Germany, including Neuβer and Christian Klingler, the Management Board member responsible for Sales and Marketing. *See* Complaint ¶161, *State of New York v. Volkswagen AG, et al.* (N.Y. Sup. Ct. filed July 19, 2016). Specifically, Horn made clear that certification of the MY 2016 Generation 3 vehicles was at risk if Volkswagen failed to provide CARB all the outstanding information it was awaiting. *See id.* As discussed below, Defendants Winterkorn and Diess were given a presentation about the defeat devices on July 27, 2015.
- 214. As VW AG has admitted, "[w]hen U.S. regulators threatened not to certify VW model year 2016 vehicles for sale in the United States, VW AG supervisors requested a briefing on the situation in the United States. On or about July 27, 2015, VW AG employees presented to VW AG supervisors. Supervisors A [Neuβer] and D [Eichler] were present, among others." (SOF ¶59).
- 215. According to the Criminal Complaint (attached as Exhibit 3) that the United States filed against Oliver Schmidt, "on or about July 27, 2015 SCHMIDT and other VW employees met in advance of the meeting with VW's executive management. During this pre-meeting, the VW employees, including SCHMIDT, prepared a chart showing possible consequences of a meeting SCHMIDT was scheduled to have with CARB the following week. The slide showed that if the outcome was 'positive for VW,' VW would obtain approval for model year 2016 vehicles, but that if 'negative for VW' and there was 'no explanation for GEN1 and GEN2,' there could be an 'Indictment?'" (Crim. Cmplt. ¶41.)<sup>11</sup>
- 216. Then, according to the Criminal Complaint against Schmidt, "on or about July 27,2015, SCHMIDT and other VW employees presented to VW's executive management in

<sup>&</sup>lt;sup>11</sup> "VW" is defined in the Criminal Complaint to refer collectively to VW AG and its subsidiaries, including VWGoA, and affiliates. (Crim. Cmplt. ¶3.)

Wolfsburg, Germany, regarding the existence, purpose, and characteristics of the defeat device. In the presentation, VW employees assured VW executive management that U.S. regulators were not aware of the defeat device—that is the engine's ability to distinguish between the dynamometer and road mode. Rather than advocate for disclosure of the defeat device to U.S. regulators, VW executive management authorized its continued concealment." (Crim. Cmplt. ¶42.) As detailed below, reports indicate that Defendants Diess and Winterkorn were among the VW AG executives who received the presentation Schmidt and others made in Wolfsburg on July 27, 2015.

- 217. As VW AG has admitted, "[o]n or about August 5, 2015, in a meeting in Traverse City, Michigan, two VW employees met with a CARB official to discuss again the discrepancies in emissions of the 2.0 Liter Subject Vehicles. The VW employees did not reveal the existence of the defeat device." (SOF ¶60.)
- 218. As the Criminal Complaint against Schmidt alleges, "on or about August 17 and 18, 2015, SCHMIDT and other co-conspirators developed a plan for what VW employees would say during a meeting scheduled with CARB on August 19, 2015 in El Monte, California. The plan, approved by senior VW managers, envisioned VW employees continuing to conceal the existence of the defeat device and cheating on U.S. emissions tests from U.S. regulators, in order to obtain certification for the model year 2016 vehicles." (Crim. Cmplt. ¶47.)
- 219. The Second Superseding Indictment alleges that "[o]n or about August 17, 2015, SCHMIDT wrote to a manager at VW that another manager had just 'explained to me why [another VW employee] should not come along [to a future CARB meeting]—so he would not have to consciously lie." (SSI ¶81 (second and third alterations in original).)
- 220. As VW AG has admitted, "[o]n or about August 18, 2015, Supervisor A [Neuβer] and D [Eichler], and others, approved a script to be followed by VW AG employees during an upcoming meeting with CARB in California on or about August 19, 2015. The script provided for continued concealment of the defeat device from CARB in the 2.0 Liter Subject Vehicles, with the goal of obtaining approval to sell the Gen 3 model year 2016 2.0 Liter Subject Vehicles in the United States." (SOF ¶61.)

221. VW AG also admitted that "[o]n or about August 19, 2015, in a meeting with CARB in El Monte, California, a VW employee explained, for the first time to U.S. regulators and in direct contravention of instructions from supervisors at VW AG, that certain of the 2.0 Liter Subject Vehicles used different emissions treatment depending on whether the vehicles were on the dynamometer or the road, thereby signaling that VW had evaded U.S. emissions tests." (SOF ¶62.)

- As VW AG has admitted, "[o]n or about September 3, 2015, in a meeting in El Monte, California with CARB and EPA, Supervisor D [Eichler], while creating the false impression that he had been unaware of the defeat device previously, admitted that VW had installed a defeat device in the 2.0 Liter Subject Vehicles." (SOF ¶63.) As discussed below, the EPA responded on September 18, 2015, with a Notice of Violation ("NOV") to VW AG, Audi AG, and VWGoA for the 2.0 liter diesel cars, and CARB sent those same entities an in-use compliance letter as well.
- 223. VW AG has admitted similar facts concerning its 3.0 liter diesel cars. Specifically, VW AG has admitted that "[o]n or about January 27, 2015, CARB informed VW AG that CARB would not approve certification of the Model Year 2016 3.0 Liter Subject Vehicles until Audi AG confirmed that the 3.0 Liter Subject Vehicles did not possess the same emissions issues as had been identified by the ICCT study and as were being addressed by VW with the 2.0 Liter Subject Vehicles." (SOF ¶65.)
- 224. VW AG has also admitted that "[o]n or about March 24, 2015, in response to CARB's questions, Audi AG employees made a presentation to CARB, during which Audi AG employees did not disclose that the Audi 2.0 and 3.0 Liter Subject Vehicles and the Porsche Vehicles in fact contained a defeat device, which caused emissions discrepancies in those vehicles. The Audi AG employees informed CARB that the 3.0 Liter Subject Vehicles did not possess the same emissions issues as the 2.0 Liter Subject Vehicles when, in fact, the 3.0 Liter Subject Vehicles possessed at least one defeat device that interfered with the emissions systems to reduce NOx emissions on the dyno but not on the road. On or about March 25, CARB, based on the

misstatements and omissions made by the Audi AG representatives, issued an executive order approving the sale of Model Year 2016 3.0 Liter Subject Vehicles." (SOF ¶66.)

- 225. Further, VW admitted that "[o]n or about November 2, 2015, EPA issued a Notice of Violation to VW AG, Audi AG and Porsche AG, citing violations of the Clean Air Act related to EPA's discovery that the 3.0 Liter Subject Vehicles and the Porsche Vehicles contained a defeat device that resulted in excess NOx emissions when the vehicles were driven on the road." (SOF ¶67.) VW AG also admitted that "[o]n or about November 2, 2015, VW AG issued a statement that 'no software has been installed in the 3-liter V6 diesel power units to alter emissions characteristics in a forbidden manner." (SOF ¶68.)
- 226. However, VW AG admitted that "[o]n or about November 19, 2015, Audi AG representatives met with EPA and admitted that the 3.0 Liter Subject Vehicles contained at least three undisclosed AECDs. Upon questioning from EPA, Audi AG representatives conceded that one of these three undisclosed AECDs met the criteria of a defeat device under U.S. law." (SOF ¶69.)
- 227. VW AG similarly admitted that "[o]n or about May 16, 2016, Audi AG representatives met with CARB and admitted that there were additional elements within two of its undisclosed AECDs, which impacted the dosing strategy in the 3.0 Liter Subject Vehicles and the Porsche Vehicles. (SOF ¶70.) Then, "[o]n or about July 19, 2016, in a presentation to CARB, Audi AG representatives conceded that elements of two of its undisclosed AECDs met the definition of a defeat device." (SOF ¶71.)
- 228. In conclusion, VW AG admitted that "Supervisors A-F and others caused defeat device software to be installed on all of the approximately 585,000 Subject Vehicles and the Porsche Vehicles sold in the United States from 2009 through 2015." (SOF ¶72.)

## J. Volkswagen's Emissions-Cheating Scheme Was an Open Secret at the Company

229. As several US and German news sources have reported, the emissions scandal-related misconduct at VW AG went far beyond any rogue group of engineers. Rather, as *Der* 

Spiegel reported on October 14, 2015 based on information about VW AG's internal investigation and Jones Day's investigation, "the longstanding emissions fraud with illegal software was by no means the offense of a 'small group' of managers as the company has claimed so far. Dozens of Volkswagen managers were involved." *Der Spiegel* also reported that the fact "[t]hat this engine met the requirements without the expensive exhaust gas treatment usually customary for diesel-powered engines had to 'make every engine developer suspicious,' a VW manager says." After VW AG's emissions cheating emerged and the Company offered amnesty to whistleblowers, as many as 50 employees elected to participate, further belying any notion that VW AG's cheating was limited to a small number of low-level, rogue employees. VW AG's admissions in its plea agreement and the United States' allegations in the criminal cases against senior VW AG executives, as quoted above, further demonstrate that the emissions-cheating scheme was directed from and known by senior management of both VW AG and VWGoA.

- 230. Senior managers—including Defendant Winterkorn himself—were aware for years or were severely reckless in not knowing that the Company was using defeat-device software to hide the fact that the TDI cars did not and could not meet emissions standards. As discussed above, and as *Bild* reported on September 27, 2015, Bosch notified VW AG's top management as early as 2007 that the EDC17 software supplied for use in VW AG's TDI vehicles could not legally be used to reduce emissions during testing, and "[t]he circle of those in the know at VW must have been larger than assumed so far if even the supplier knew about the ploy."
- 231. Additionally, as reported in the September 26, 2015 *Frankfurter Allgemeine*, VW AG's present investigation into the emissions-cheating scandal (conducted by the Jones Day law firm) has revealed that a whistleblower at VW AG warned management in 2011 that the Company was illegally manipulating reported emissions data. Recipients of the warning included Neuβer, then-Head of Powertrain Development for the Volkswagen brand and subsequently Volkswagen's brand manager and a member of the VW AG Management Board.
- 232. After the whistleblower, an engineer at the Company, notified management of the misconduct, neither Neuβer nor anyone else in management took any action to investigate whether

the allegations were true or otherwise to remedy the problem. Instead, VW AG intentionally installed emissions-cheating software on 11 million vehicles worldwide, told US regulators that the discrepancies between emissions-test results of Volkswagen cars in the lab and on the road were due to minor technical problems, allowed the noxious cars to be driven for years, and continuously touted the Company's purported "clean diesel" technology to investors.

- 233. Credible reports also indicate that Winterkorn's top lieutenants were centrally involved in the decision to use defeat-device software to manipulate emissions data. An October 3, 2015 *Bild* article reported that, in internal interviews at the Company, several engineers have incriminated former VW AG head of development Hackenberg, who is reported not only to have known about VW AG's cheating, but was also one of the Company's executives to have given the order to cheat.
- 234. Despite the calamitous consequences that could flow from VW AG's use of defeat-device software, management and employees were far more concerned with maintaining secrecy and managing potential public-relations fallout than with investigating whether and how VW AG had been cheating emissions tests for years. In a February 14, 2016 article, *Bild* reported that internal communications among VW AG's engineers and management "coolly calculated" "the 'risks' and 'benefits' of the emission fraud," discussing "scenarios on how to handle the allegations of US agencies." Among other options, the engineers discussed "[a]cknowledgement without comment or ignoring of the results"; "further tests/inspection"; and a "worst case scenario" of "[b]uy back of vehicles." The engineers even discussed the "offer of a software upgrade" "to placate the US agencies," even though all involved understood that the Company could not achieve "compliance with the required limits."
- 235. In addition, Winterkorn and others in VW AG's senior management were undoubtedly aware or severely reckless in not knowing that the TDI vehicles actually produced emissions far beyond legal levels, given the significant suspicions of competitors and industry insiders. As *Business Insider* reported on February 16, 2016, General Motors ("GM") had strong suspicions that Volkswagen was cheating on its diesel emissions. GM's former Vice Chairman

Lutz stated that GM had studied Volkswagen's diesel technology and was utterly unable to understand how Volkswagen had complied with CARB's strict standards. According to Lutz, "[o]ur people told me that they had studied the Volkswagen products and that they could not get the hardware to perform the same way to satisfy California's emissions standards." Eventually, Lutz was left to "ask[] if their people were just smarter than ours." Of course, as has become clear, the only way Volkswagen's TDI vehicles passed emissions testing was by using illegal defeat devices to manipulate testing results.

- 236. Similarly, as *Businessweek* reported on October 21, 2015 in an article titled "**How Could Volkswagen's Top Engineers Not Have Known?**," automotive expert Dudenhoeffer expressed his astonishment that Volkswagen management could credibly believe the Company had successfully produced a high-performance, low-emissions diesel vehicle. "That is the story of Santa Claus," Dudenhoeffer stated, because without the urea system, "it's not possible to meet the standard."
- 237. Market observers have also made clear that the upper echelons of management at Volkswagen knew of the defeat devices. The October 21, 2015 *Businessweek* article detailed the ICCT and WVU investigation that revealed Volkswagen's emissions cheating, and astutely asked: "[T]he diesel engine has been around for more than 100 years. It was invented in Germany. Is it really possible that a German company run by engineers believed the diesel engine had suddenly become clean?" The article went on:

It's not credible that top managers were unaware corners had been cut, says Dudenhoeffer, who worked at Porsche and other carmakers before entering academia. In contrast to GM, where finance people have run the show for years, and Ford Motor, whose former CEO is a turnaround specialist from another industry, **VW** is a company where the engineers are in charge. It's always claimed that an engineer-filled executive suite was a precondition of building top-quality cars. Winterkorn ran around at auto shows with a tape measure and a magnet to examine vehicles from rival carmakers, while back in his own ship he got involved in technical details. When VW managers called for clean diesel without the urea system, "they must have known that it's impossible, or else it's not possible they have degrees as engineers," Dudenhoeffer says.

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238. Further, contrary to his statements that he was not aware of the Company's emissions cheating until September 2015, as *Bild* reported on October 22, 2015, Winterkorn himself knew in the spring of 2014 that Volkswagen's TDI diesel engines employed illegal defeat devices in order to pass emissions testing. At that time, Winterkorn and others reportedly discussed communications from both the EPA and CARB regarding documented inconsistencies between VW AG's reported emissions results for its TDI vehicles and actual emissions levels.

239. The EPA's September 18, 2015 NOV evidences that Volkswagen top management knew in May 2014 that its TDI vehicles produced NOx emissions at levels far higher than permitted by applicable regulations. Rather than either reveal the truth to the public or work to fix the vehicles' underlying technical problems, Volkswagen responded by falsely denying that there was any problem at all. The EPA wrote that

[CARB] and the EPA were alerted to emissions problems with these vehicles in May 2014 when the West Virginia University's (WVU) Center for Alternative Fuels, Engines & Emissions published results of a study commissioned by the [ICCT] that found significantly higher in-use emissions from two light duty diesel vehicles (a 2012 Jetta and a 2013 Passat). Over the course of the year following the publication of the WVU study, VW continued to assert to CARB and the EPA that the increased emissions from these vehicles could be attributed to various technical issues and unexpected in-use conditions. . . . None of the potential technical issues suggested by VW explained the higher test results consistently confirmed during CARB's testing. It became clear that CARB and the EPA would not approve certificates of conformity for VW's 2016 model year diesel vehicles until VW could adequately explain the anomalous emissions and ensure the agencies that the 2016 model year vehicles would not have similar issues. Only then did VW admit it had designed and installed a defeat device in these vehicles in the form of a sophisticated software algorithm that detected when a vehicle was undergoing emissions testing.

240. CARB's September 18, 2015 letter to Volkswagen likewise showed that Volkswagen was aware of the problems that ICCT and WVU had identified, as CARB wrote that ICCT's investigation

prompted CARB to start an investigation and discussions with the Volkswagen Group of America (VW) on the reasons behind these high NOx emissions observed on their 2.0 liter diesel vehicles over real world driving conditions. As you know, these discussions over several months culminated in VW's admission in early

September 2015 that it has, since model year 2009, employed a defeat device to circumvent CARB and the EPA emission test procedures.

- 241. As part of its response, according to the CARB letter, Volkswagen "initiated testing to replicate the ICCT/WVU testing and identify the technical reasons for the high on-road emissions." After learning on or about March 31, 2014 about the upcoming publication of the ICCT report, Defendant Horn, then-CEO of VWGoA, requested reports and analyses of the ICCT report from VWGoA's Environmental and Engineering Office. (Complaint ¶¶121-23, State of New York v. Volkswagen AG, et al. (N.Y. Sup. Ct. filed July 19, 2016).)
- 242. In an email dated May 15, 2014, Defendant Horn was informed that Volkswagen vehicles did not meet governing emissions standards, and was warned of the significant risks arising out of the emissions scandal, including monetary penalties, recall of vehicles, removal of the cars from the United States, and the possibility of having to buy back the cars. Amidst repeated apologies, Horn admitted to the US Congress on October 8, 2015 that he was informed in May 2014 of "a possible emissions non-compliance." Horn admitted that "[w]e have broken the trust of our customers, dealerships, and employees, as well as the public and regulators."
- 243. In a March 2, 2016 press release in connection with the Company's defense to securities-fraud litigation in Germany, VW AG itself admitted that "[o]n 23 May 2014, a memo about the ICCT study was prepared for Martin Winterkorn, then-Chairman of the Management Board of VW AG. This memo was included in his extensive weekend mail."
- 244. As *Bild* reported on February 14, 2016, Winterkorn received a memo on May 23, 2014—16 months before the emissions-cheating scandal became public—from Gottweis, the veteran Volkswagen executive whom employees referred to as the "fireman" for his ability to "smell trouble" and "sound the alarm" and address emergent crises at the Company. Gottweis was Volkswagen's top quality-assurance executive and led the Company's "Product Safety Taskforce" and, according to a February 15, 2016 *Wall Street Journal* article, "ran a team of product sleuths that Volkswagen management dispatched around the world to put out quality flare-ups before they grew into a full-fledged blaze." *Focus* similarly reported on February 16, 2016, that Gottweis "can

smell trouble," and that "[u]sually Winterkorn heeded his advice." According to a February 14, 2016 report in *Süddeutsche Zeitung*, Gottweis always communicated openly with Winterkorn regarding quality issues, and Winterkorn usually followed up with Gottweis.

- 245. A *Süddeutsche Zeitung* article from January 13, 2017, explained that Gottweis had actually known of Volkswagen's use of illegal defeat devices as far back as July 2012, when engineers informed he and Neuβer of the devices. According to the article, "Gottweis in the spring of 2014 finally said 'I have to talk to the boss,'" meaning Winterkorn.<sup>12</sup>
- 246. In Gottweis's memo, which Winterkorn took home to read as part of his "weekend suitcase," Gottweis discussed tests by US agencies in which the NOx output of TDI vehicles exceeded acceptable levels by up to 35 times. Gottweis told Winterkorn that there was no legitimate explanation for either those excessive emissions levels or the defeat device that regulators would no doubt find upon examination.
- 247. Specifically, and as *Süddeutsche Zeitung* reported, Gottweis wrote that Volkswagen's US engineers could not provide an honest explanation for the heightened NOx emissions levels, and that "[n]o plausible explanation for the dramatically increased NOx emissions can be given to authorities." Gottweis warned that "[i]t is to be assumed that the authorities will subsequently examine VW systems to determine if Volkswagen has installed test recognition into the engine control unit software (a so-called defeat device)."
- 248. *Bild* also reported on February 14, 2016 that Winterkorn admitted, during a deposition as part of Jones Day's investigation into the Volkswagen emissions scandal, that by

<sup>&</sup>lt;sup>12</sup> See also Süddeutsche Zeitung, "Ermittler filzen Villa von Winterkorn," Jan. 27, 2017 ("In the spring of 2014, [Gottweis] allegedly said: 'I need to speak with the boss.' The boss in Wolfsburg was Winterkorn."); Der Tagesspiegel, "Martin Winterkorn in Erklärungsnot," Jan. 15, 2017 (Gottweis "allegedly informed Winterkorn about the manipulation of diesel emissions long before the scandal broke. . . . It is unclear at what point VW head Winterkorn learned about the tricks of his engineers for the first time. Gottweis, who in the course of his career at VW was also in charge of the emissions measuring laboratory in Los Angeles, could have confidentially informed Winterkorn earlier than is officially known, without leaving a trace.").

May 2014, he was aware of the problems regarding impermissibly high emissions levels in the TDI vehicles.

- 249. After being placed on notice of Volkswagen's emissions cheating, Winterkorn and other top managers did nothing for months, perhaps out of a cavalier and mistaken belief that Volkswagen could resolve any US legal issues by paying a "cost-of-doing-business" fine. The March 2, 2016 VW AG press release stated that "[o]n 14 November 2014, Mr. Winterkorn received another memo that reported, amongst other things, on several then current product defect cases and referred to a cost framework of approx. EUR 20 million for the diesel issue in North America." That is, the Company ignored compelling evidence of illegal conduct because it was focused on its bottom line, without regard to compliance or environmental impact.
- 250. Similarly, as *Bild* reported on February 14, 2016, "[a]s late as July 2015 a VW technician noted in a matrix under 'prospects' the possibility that the emissions fraud could slip through the cracks at the agencies . . . or 'monetary fines could be lower,'" and VW AG has admitted that on July 27, 2015, "Volkswagen employees discussed the diesel issue on the periphery of a regular meeting about damage and product issues, in the presence of Martin Winterkorn and Herbert Diess."
- 251. In addition, according to a February 14, 2016 *Bild* report, a senior Volkswagen manager admitted true emissions levels to a CARB official on August 5, 2015 (over a month before Volkswagen's emissions cheating became public), and Defendant Diess held meetings on August 24 and 25, 2015 to discuss the Company's response to the scandal that was about to break.
- 252. Similarly, leading German business newspaper *Handelsblatt* reported on February 15, 2016 that Volkswagen sources admitted that "it appears that top management at VW knew about the existence of a U.S. probe for more than a year before it went public—but apparently did little to address the situation, which angered U.S. investigators." Indeed, "it wasn't just Mr. Winterkorn who knew, but it was common knowledge in top management circles. At the very latest, by the time of the first recall at the end of 2014, the entire Management Board at VW had been informed of the problem, which had been the subject of intense discussions." Further, "senior

managers surrounding Mr. Winterkorn were informed of the scandal very early on in its development."

- 253. Winterkorn was warned again regarding Volkswagen's use of illegal defeat devices just two weeks before the scandal became public. On February 27, 2016, *Fortune* reported on internal Volkswagen documents demonstrating that a Volkswagen manager sent a letter directly to Winterkorn on September 4, 2015, stating that "[i]n the conversation on [September 3, 2015] with the regulator CARB (California Air Resources Board), the defeat device was admitted." However, Winterkorn still stayed silent.
- 254. Volkswagen's emissions cheating has also resulted in significant financial harm to the Company, in numerous ways. Ratings agencies such as S&P have downgraded Volkswagen debt, resulting in a sharply increased cost of capital—particularly damaging for Volkswagen's financing unit. According to an October 13, 2015 Morgan Stanley analyst report, Volkswagen's cost of capital has risen by more than 200 basis points. As Morgan Stanley noted, "[o]n a consumer finance business with over €140bn in assets, the annual cost of this rise in capital costs is very significant—if VW cannot pass this on to the consumer, as it does normally, this could almost entirely wipe out current VW Financial Services annual EBIT of almost €2bn p.a. On the other hand, if VW does pass on the higher costs to consumers, it will present a sharp competitive barrier for VW and Audi against their closest peers."
- 255. Consumers will likely be further turned away from Volkswagen cars by the drop in resale values that Volkswagen cars have experienced in the scandal's wake. Volkswagen vehicles' resale values were long a key selling point and value generator. In an August 20, 2012 analyst report, Morgan Stanley reported that resale values were "[b]y far the biggest single driver of ownership cost . . . . Here the quality and strong brand of VW vehicles [is] largely unmatched in the mass market segments. . . . When compared to the average peer, VW's residual advantage looks to provide a €750-1250 per vehicle [total cost of ownership] advantage (equivalent to c. 5-7% of the 3-year [total cost of ownership])."

256. In the wake of the scandal, however, resale values have plummeted. As Barclays wrote in a November 13, 2015 analyst report:

Kelley Blue Book, a research group that tracks car values, said resale values of VW models affected by the scandals have fallen 16% on average since their pre-crisis levels. According to Autolist, models affected by the scandal are taking 123 days to sell, about 44% longer than a control group of similar non-Volkswagen cars. List prices are about 5% below what the company's algorithms suggest they should be, and this drop has yet to cease.

It is not just the affected models that are likely to be impacted by this general tail off in sentiment. Consumers are either not clued-up enough to know which models have been implicated or, more likely, have little faith in VW's ability to draw a line under the situation.

257. Lessors of affected vehicles, as compared to owners, will not bear the same loss in value because lease-end residual values are written into the terms of the lease contracts. VW AG, on the other hand, faces significantly increased financial exposure because far fewer leasing customers (if any) will purchase their vehicles at lease-end at the agreed upon resale values, which were set before the emissions scandal was revealed and do not reflect the loss in value caused by the scandal. Volkswagen will then be left with increased inventory and, even if it can legally resell the affected vehicles (assuming a fix is available to render the cars compliant with emissions standards), will have to try to sell the cars into a depressed market.

258. In all, Volkswagen faces massive monetary liability. Credit Suisse presented a thorough analysis in an October 2, 2015 analyst report, discussing its base case of €43.6 billion cost impact to VW AG (including €6.5 billion in criminal and civil penalties) alongside a €77.8 billion bear case and a €22.3 billion bull case. Those costs include vehicles' fall in residual value, the cost of required fixes to the vehicles, potential civil and criminal penalties, and a clawback of government subsidies that had been provided for energy-efficient vehicles. Société Générale's forecast is even starker, estimating in a January 7, 2016 analyst report that Volkswagen's legal liabilities alone will total €100 billion. None of these liabilities or contingencies were properly accounted for during the Class Period.

### K. VW AG Fraudulently Understated Liabilities, Overstated Profits, and Failed to Disclose Material Contingencies

- 259. As a German corporation, VW AG is required to prepare its financial statements in accordance with International Financial Reporting Standards ("IFRS"). In VW AG's Class Period periodic reports, VW AG, Winterkorn, and Diess represented that its financial statements complied with IFRS.
- 260. Financial statements (including footnote disclosures) are a central feature of financial reporting. One of the fundamental objectives of financial reporting is that it provide accurate and reliable information concerning an entity's financial performance during the period being presented.
- 261. The Conceptual Framework underlying IFRS, the accounting standards that VW AG is subject to and that its publicly filed financial statements purported to comply with, states "[t]he objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity." (IASB Conceptual Framework ("IASB CF") OB2.)
- 262. The IASB Conceptual Framework also states that investors, lenders, and other creditors are interested to know and understand, among other things, "how efficiently and effectively the entity's management and governing board have discharged their responsibilities to use the entity's resources," while examples of these responsibilities include "protecting the entity's resources from unfavourable effects of economic factors such as price and technological changes and ensuring that the entity complies with applicable laws, regulations and contractual provisions." (IASB CF OB 4; footnote omitted.) Therefore, a reporting entity has a duty to present information in its general purpose financial reports that reflects its financial position, which is information about the entity's economic resources and the claims against the reporting entity. (IASB CF OB 12.)

263. Further, the IASB Conceptual Framework states that the two fundamental qualitative characteristics that make accounting information useful for decision-making are relevance and faithful representation. (IASB CF QC 4 & 5.) To be a faithful representation, information must be complete, neutral, and free from error. (IASB CF QC 12.) "Complete" means providing "all information necessary for a user to understand the phenomenon being depicted, including all necessary descriptions and explanations." (IASB CF QC 13.) "Neutral" means "without bias in the selection or presentation of financial information . . . not slanted, weighted, emphasized, de-emphasized or otherwise manipulated to increase the probability that financial information will be received favourably or unfavourably by users." (IASB CF QC 14.) "Free from error" means "there are no errors or omissions in the description of the phenomenon, and the process used to produce the reported information has been selected and applied with no errors in the process." (IASB CF QC 15.) "Free from error" would also mean the material conformity with the relevant accounting standards promulgated by IFRS, including IAS 37.

264. These accounting standards, and those described in further detail below, created an affirmative obligation requiring VW AG and those individuals signing its financial reports (including Winterkorn and Diess) to ensure that VW AG's financial statements were accurate and complied with all relevant provisions of IFRS and IAS. These obligations were not upheld here. In the Company's Class Period periodic reports, VW AG, Winterkorn, and Diess falsely represented that VW AG's financial statements complied with IFRS. They did not. Specifically, VW AG's accounting obligations included compliance with IAS 37, which governs when a company is required to recognize a "provision" for contingencies. Provisions are recognized as liabilities in financial statements because they are present obligations and it is probable that an outflow of resources will be required to settle the obligations.

265. Under IAS 37, a provision must be recognized when a company has a present obligation (legal or constructive) as a result of a past event; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and a reliable estimate can be made of the amount of the obligation, including when there is a range of possible

outcomes, in which case the amount accrued should be either the best estimate of the obligation or, if there is no best estimate, the midpoint of the range. A past event is deemed to give rise to present obligation if it is more likely than not that a present obligation exists at the end of each reporting period. (IAS 37 ¶15.) IAS 37 further provides that "[e]xcept in extremely rare cases, an entity will be able to determine a range of possible outcomes and can therefore make an estimate of the obligation that is sufficiently reliable to use in recognising a provision." (IAS 37 ¶25.) In the rare cases in which a reliable estimate cannot be made, the liability still exists but cannot be recognized, and is instead disclosed as a contingent liability, as discussed further below in ¶266. (IAS 37 ¶26.)

- 266. IAS 37 designates a past event that leads to a present obligation as an obligating event. For an event to be deemed an obligating event, the entity cannot have a realistic alternative to settle the obligation created by the event. (IAS 37 ¶17.) This is the case if the settlement of the obligation can be enforced by law or, in the case of a constructive obligation, where the event creates valid expectations in other parties that the entity will discharge the obligation. (IAS 37 ¶17.) IAS 37 specifically states that, in order to recognize a provision, it is not necessary to know the identity of the party or parties to whom the obligation is owed, and that the obligation may be to the public at large. (IAS 37 ¶20.)
- 267. In contrast to US Generally Accepted Accounting Principles, which require recognition of contingent liabilities only when they are "probable," which is not defined with reference to any specific percentage likelihood and is sometimes interpreted as a high likelihood, a loss is considered "probable" and therefore must be recognized as a provision under IAS 37 when the loss is more likely than not, i.e., a probability of greater than 50%.
- 268. For a provision to qualify for recognition in accordance with IAS 37, in addition to the requirement of a present obligation existing at the end of a reporting period, there must be a probability that an outflow of resources embodying economic benefits to settle that obligation must be more likely than not to occur. (IAS 37 ¶23.) In each reporting period during the relevant timeframe, VW AG had a duty to settle the existing obligation caused by the use of unlawful defeat

devices in the vehicles it had sold and the resulting emissions violations and, therefore, it was more likely than not that an outflow of resources embodying economic benefits would be needed to settle the obligation.

- 269. Moreover, if the entity has a number of similar obligations (e.g., similar defeat devices installed in multiple cars), IAS 37 states that the probability that an outflow will be required in settlement is determined by considering the class of obligations as a whole, even if the likelihood of outflow for any one item may be small. (IAS 37 ¶24.) In cases where the probability that outflows of resources will be needed to settle the class of obligations as a whole, a provision must be recognized. (IAS 37 ¶24.)
- 270. As a liability, the provision would have reduced VW AG's operating profit during each period for which it should have been recognized and would have reduced VW AG's net assets and shareholders' equity as of the balance-sheet date at the end of the period. For example, in its interim report for the third quarter of 2013, VW AG reported that its "earnings [were] impacted by contingency reserves affecting the areas of Passenger Cars and Power Engineering."
- 271. In each of VW AG's interim and annual reports issued during the Class Period, VW AG, Winterkorn, and Diess (for VW AG's second quarter 2015 interim report) stated that the Company's financial statements were prepared in accordance with IFRS. More specifically, VW AG and Winterkorn stated in the Company's annual reports that "[i]n accordance with IAS 37, provisions are recognized where a present obligation exists to third parties as a result of a past event, where a future outflow of resources is probable and where a reliable estimate of that outflow can be made." Contrary to these statements and in violation of IFRS and IAS 37, VW AG recognized no provision for its present obligations relating to its emissions-cheating scheme during the Class Period.
- 272. As set forth in greater detail below, each of the requirements for recognition of a provision under IAS 37 was met at all relevant times by VW AG. VW AG's installation of defeat devices in 11 million cars, including 585,000 cars sold in the United States, violated applicable legal and regulatory requirements that could subject it to fines and criminal and civil liability, and

thus constituted a "past event" that created a then-present legal obligation under the first prong of IAS 37. Under the second prong of IAS 37, it was probable that VW would have to pay (use an "outflow of resources") to resolve regulatory fines and criminal and civil litigation, as reflected in the billions of dollars of liabilities to purchasers of its "clean diesel" cars for damages and repairs, and to US and foreign governmental agencies for fines and penalties resulting from its emissionscheating scheme. The existence of regulatory regimes in the United States and elsewhere meant that Defendants had to actively defraud and manipulate regulators and the public in selling 11 million cars over an eight-year period, which cars were likely to remain in use for many years after the date of sale, and it was not more probable than not that the installation of so many illegal defeat devices could remain completely undetected forever. Under the third and final prong of IAS 37, a provision was required because the amount of the provision could be reliably estimated. For example, even assuming liability would be limited to US regulatory fines, Defendants could simply calculate the total numbers of cars with illegal defeat devices sold as of the reporting date in the United States and in California, and extrapolate the possible fines associated with the sale of those vehicles (up to \$42,500 each, or over \$20 billion in the aggregate). Such a simple calculation would create a highly reliable baseline from which to determine a provision. In fact, IAS 37 specifically cites "penalties or clean-up costs for unlawful environmental damage" as an example of a present obligation arising from past events that should be recorded as a provision because it would lead to an outflow of resources embodying economic benefits in settlement regardless of the future actions of the entity. (IAS 37 ¶19.)

273. Another specific example provided in IAS 37 of an entity that must recognize a provision is when "an entity recognizes a provision for the decommissioning costs of an oil installation or a nuclear power station to the extent that the entity is obliged to rectify damage already caused." (IAS 37 ¶19.) This example relates to the circumstances experienced by VW AG in this matter because, similar to the entity in the specific example described in IAS 37 that caused damage from a prior event and had a present obligation to settle the damage, VW AG had caused damage by knowingly using unlawful defeat devices in the automobiles it had sold, resulting in

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violations of emissions regulations in the United States and elsewhere, and had an obligation during the relevant timeframe to settle the damage through payments of CARB, EPA, and other penalties and damages, or other resources embodying economic benefits to settle that obligation.

274. In addition to IAS 37's requirements concerning provisions, IAS 37 requires a company to disclose contingent liabilities in two circumstances: (1) a possible obligation arises from past events, and its existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the company's control; or (2) a present obligation arises from past events but is not recognized as a provision because (a) it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, or (b) the amount of the obligation cannot be measured with sufficient reliability. In either case, IAS 37 requires companies to disclose contingent liabilities, unless the possibility of an outflow of resources embodying economic benefits is remote. The company must (unless the possibility of any outflow in settlement is remote) disclose a brief description of the nature of each class of contingent liability at the end of each reporting period and, where practicable, an estimate of its financial effect, an indication of the uncertainties relating to the amount or timing of any outflow, and the possibility of any reimbursement. (IAS 37 ¶86.)

275. While it is clear that IAS 37 required VW AG to record a provision, even if a provision was not recorded, IAS 37 required VW AG, Winterkorn, and Diess to disclose a contingent liability relating to the Company's emissions-cheating scheme. Assuming that VW AG, Winterkorn, and Diess wrongly believed that it was not *probable* that an outflow of resources embodying economic benefits would be needed to settle obligations caused by the use of defeat devices, the possibility of an outflow of resources embodying economic benefits to settle those obligations could not be deemed *remote*, and disclosure of a contingent liability was therefore required.

276. To the extent the emissions cheating scheme could be characterized not as a "present obligation" but as a "possible obligation," it would be confirmed by the occurrence of the

US government discovering Volkswagen's misconduct and thus was required to be disclosed as a contingent liability in each of VW AG's financial reports issued during the Class Period.

277. Alternatively, to the extent that VW AG's liabilities related to the emissions-cheating scheme constituted "present obligations," VW AG, Winterkorn, and Diess were required to disclose a contingent liability relating to Volkswagen's use of defeat devices to the extent that either it was not probable that an outflow of resources embodying economic benefits would be required to settle the obligation, or the amount of the obligation could not be measured with sufficient reliability to recognize a provision.

# 1. VW AG Had Actual Knowledge from November 19, 2010 to April 28, 2014 that Its Financial Statements Were Materially False and Misleading

278. VW AG was required to record a provision for the liabilities arising from its emissions-cheating scheme in each reporting period during the Class Period. From at least November 19, 2010 to April 28, 2014, the liabilities were probable under IAS 37 and VW AG could reliably estimate the amount of liabilities, or at the very least, provide a range of liabilities.

279. The losses arising from VW AG's misconduct were probable under IAS 37 because senior VW AG management, including Winterkorn, knew from before the start of the Class Period that VW AG was engaging in deliberate emissions cheating that exposed it to massive liability in the United States and elsewhere. Notwithstanding these liabilities and obligations, Defendants recorded *no* provision for any of the billions in liabilities they had incurred. VW AG has admitted that "[f]rom approximately May 2006"—years before the start of the Class Period—"to approximately November 2015, VW AG, through Supervisors A-F and other VW employees, agreed to deceive U.S. regulators and U.S. customers about whether the Subject Vehicles and the Porsche Vehicles complied with U.S. emissions standards. . . . Supervisors A-F and other VW employees: (a) knew that the Subject Vehicles and the Porsche Vehicles did not meet U.S. emissions standards; (b) knew that VW was using software to cheat the U.S. testing process by making it appear as if the Subject Vehicles and the Porsche Vehicles met U.S. emissions standards

when, in fact, they did not; and (c) attempted to and did conceal these facts from U.S. regulators and U.S. customers." (SOF ¶31.)

- 280. Also prior to the start of the Class Period, in 2006, employees told VW AG's Management Board, led by Winterkorn, that Volkswagen's diesel engines would not be able to comply with emissions requirements. Further, in 2007, Bosch, the supplier of the defeat device code, specifically warned Volkswagen's senior executives that the software was illegal. Also, in 2008, Bosch demanded that Volkswagen indemnify Bosch for liability arising from the defeat device.
- 281. Further, US regulators were already focused on Volkswagen's emissions compliance at least as early as 2008. Indeed, CARB issued an "Executive Order" in June 2008 demanding a statement from VW AG that no defeat device was installed in the engines of Volkswagen's cars. Otherwise, the letter states, CARB would withdraw its certification of the vehicles and assess a penalty of \$5,000 per car.
- 282. Further, in 2011, an internal whistleblower alerted Winterkorn confidant and senior VW AG executive Neuβer to the illegal manipulation of emissions data through the use of defeat devices.
- 283. The probability of the liabilities arising from the Company's misconduct is also demonstrated by VW AG's Code of Conduct. Specifically, in May 2010, the Company enacted a Code of Conduct titled "Know, Follow, Rules." The Code of Conduct was signed by Winterkorn, who represented in the Code of Conduct that it was a "Group-wide guideline that applies to all of our employees and members of executive bodies and for the compliance with which each individual is equally responsible." For his part, Winterkorn represented in the Code of Conduct that he "commit[ed] [himself] to following the Code of Conduct."
- 284. According to the Code of Conduct, VW AG "consider[s] compliance with international conventions, laws, and internal rules to be the basis for sustainable and successful economic activities." Two of the conventions specifically mentioned in the Code of Conduct pertain to environmental laws and sustainability regulations. Therefore, in adopting the Code of

Conduct in 2010, VW AG recognized that by violating "international conventions [and] laws" pertaining to the environment, the Company would face liabilities that would undermine its "sustainable and successful economic activities." As noted above, VW AG has admitted that beginning in May 2006 (four years before the Code of Conduct was adopted), the Company began its emissions cheating scheme.

285. VW AG, Winterkorn, and Diess also knew that VW AG's liabilities were probable under the Group Auditing program established by the Code of Conduct. Specifically, the Code of Conduct states that "Group Auditing will review compliance on a case-by-case and/or random basis as part of the auditing program approved by the Chairman of the Board of Management of Volkswagen AG." The Code of Conduct further states that "[e]ach of our employees obeys the laws, regulations, and internal rules applicable to their working environment and acts in accordance with the Code of Conduct," and that "superiors guard against unacceptable conduct." VW AG's Group Auditing and compliance program—along with the repeated warnings from government regulators, whistleblowers and Bosch, as well as Winterkorn's detail-oriented nature and his installation of top lieutenants in executive posts—put the Company on notice at least as early as the start of the Class Period that its liabilities arising from its emissions-cheating scheme were probable.

286. The losses were also reliably estimable. Throughout the Class Period, VW AG, Winterkorn, and Diess knew or recklessly disregarded that Volkswagen faced EPA fines of \$37,500 per violation and CARB fines of \$5,000 per violation for each affected car in the United States. Indeed, CARB specifically warned VW AG in June 2008 that the Company would be assessed a \$5,000 per car penalty for vehicles that contained a defeat device. VW AG, Winterkorn, and Diess also knew that the Company faced significant penalties for implanting defeat devices in Volkswagen diesel cars throughout the world.

<sup>&</sup>lt;sup>13</sup> EPA's \$37,500 penalty applies to violations occurring after January 13, 2009. At all relevant times before January 13, 2009, EPA's penalty was \$32,500 per car. CARB's relevant fine for violations was \$5,000 per car at all relevant times.

287. Throughout the Class Period, VW AG, Winterkorn, and Diess knew the number of "clean diesel" cars Volkswagen was illegally selling in the United States and around the world. Specifically, Volkswagen sold at least 43,869 of these vehicles in the United States in 2009, 58,784 in 2010, 76,564 in 2011, 99,121 in 2012, 111,285 in 2013, and 98,500 in 2014. In total, from 2010 to 2014, Volkswagen sold at least 488,123 "clean diesel" cars in the United States. When multiplying the number of "clean diesel" cars that Volkswagen illegally sold in this country (488,213) by EPA's fine of \$37,500 per violation (for violations occurring after January 13, 2009) combined with CARB's fine of \$5,000 per violation, VW AG faced a liability of approximately \$20,989,289,000.14

288. VW AG actively concealed this roughly \$21 billion liability from investors each year throughout the Class Period—despite the fact that the liability was continuously increasing as time went on given Volkswagen's continued push to increase sales of "clean diesel" vehicles in the United States. As demonstrated by the chart below, Volkswagen concealed liabilities of roughly \$1.9 billion for 2009, \$4.4 billion for 2010, \$7.7 billion for 2011, \$12.0 billion for 2012, \$16.8 billion for 2013, and \$21.0 billion for 2014.

Year	Number of cars sold	EPA Fine	CARB Fine	Concealed Liability (per year)	Concealed Liability (total)
2009	43,869	\$37,500	\$5,000	\$1,886,367,000	\$1,886,367,000
2010	58,784	\$37,500	\$5,000	\$2,527,712,000	\$4,414,079,000
2011	76,564	\$37,500	\$5,000	\$3,292,252,000	\$7,706,331,000
2012	99,121	\$37,500	\$5,000	\$4,262,203,000	\$11,968,534,000
2013	111,285	\$37,500	\$5,000	\$4,785,255,000	\$16,753,789,000
2014	98,500	\$37,500	\$5,000	\$4,235,500,000	\$20,989,289,000

<sup>&</sup>lt;sup>14</sup> The annual vehicle sales totals in this and the next paragraph do not include the roughly 100,000 clean diesel cars that Volkswagen sold in the United States in 2015. Thus, the totals discussed in this and the next paragraph are less than "the approximately 585,000 Subject Vehicles and the Porsche Vehicles" that VW AG has admitted selling in this country "from 2009 through 2015." (SOF ¶72.) Accordingly, the estimated liability amounts in these paragraphs may understate the actual liabilities that were probable and reliably estimable during the Class Period. Plaintiffs' calculation also assumes that all of VW AG's clean diesel cars would be subject to the same state penalties as CARB.

289. Accordingly, from at least November 19, 2010 to April 28, 2014, VW AG's liabilities arising from its emissions-cheating scheme were probable under IAS 37, and VW AG could reliably estimate the amount of liabilities, or at the very least, provide a range of liabilities as required by IAS 37. Instead of recording a provision for these liabilities, VW AG actively concealed them.

#### 2. VW AG Specifically Quantified the Understatement of Its Liabilities No Later Than April 28, 2014

290. VW AG has admitted that "[o]n or about April 28, 2014, members of the VW task force [tasked with formulating responses to questions from U.S. regulators] presented the findings of the ICCT study to Supervisor E [Gottweis] . . . . Included in the presentation was an explanation of the potential financial consequences VW could face if the defeat device was discovered by U.S. regulators, including but not limited to the applicable fines per vehicle, which were substantial." (SOF ¶56.)

291. As explained above, based on the number of "clean diesel" cars that Volkswagen sold in the United States each year from 2009 to 2014, VW AG, Winterkorn, and Diess concealed liabilities of roughly \$1.9 billion for 2009, \$4.4 billion for 2010, \$7.7 billion for 2011, \$12.0 billion for 2012, \$16.8 billion for 2013, and \$21.0 billion for 2014. In light of the admitted "substantial" liabilities that VW AG, Winterkorn, and Diess concealed from investors during the Class Period, Defendants specifically quantified the understatement of VW AG's liabilities no later than April 28, 2014.

292. Additionally, on March 10, 2016, the *Financial Times* reported that Defendant Horn received a letter attached to an email on May 15, 2014 stating that 500,000–600,000 cars in the United States from model years 2009–2014 could be affected by the diesel scandal. Significantly, the letter specifically enumerated the potential fines of "EPA: \$37,500, and CARB: \$5,500" per violation and specifically warned Horn that given the potential level of penalties, "[t]he contents of this [ICCT] study cannot be ignored!"

293. Further, as the United States alleged in its criminal complaint against Schmidt, on or about May 20, 2014, Schmidt emailed "the then-Chief Executive Officer of VW GOA"—Horn—and another employee a document analyzing "Possible Consequences/Risks" of the ICCT study. The analysis noted possible monetary penalties per vehicle of up to \$37,500 from the EPA, with 500,000 to 600,000 affected vehicles. The document also noted, "Difference between street and test stand must be explained. (Intent = penalty!)" and "applications modifications in GEN1 and GEN2 can achieve reductions of NOx emissions under RDE [real drive emissions], but not compliance within the limits." (Crim. Cmplt. ¶37.)

294. Indeed, if 500,000–600,000 cars sold in the United States were installed with defeat devices, under Volkswagen's own analysis, Horn knew at least as early as May 20, 2014 that Volkswagen's illicit practices could cost Volkswagen between \$21.5 and \$25.8 billion just in fines from EPA and CARB. Despite Defendants' explicit awareness of VW AG's financial exposure, however, they failed to take meaningful corrective action not only with regard to the affected vehicles, but also with regard to VW AG's accounting for that exposure.

295. Further, VW AG admitted in a press release on March 2, 2016 that "[o]n 23 May 2014, a memo about the ICCT study was prepared for Martin Winterkorn, then-Chairman of the Management Board of VW AG. This memo was included in his extensive weekend mail." This admission is consistent with *Bild*'s report on February 14, 2016 that Winterkorn received a memo on May 23, 2014—16 months before the emissions-cheating scandal became public—from Gottweis, a veteran Volkswagen executive whom employees referred to as the "fireman" for his ability to "smell trouble" and "sound the alarm" and address emergent crises at Volkswagen. Gottweis reportedly always communicated openly with Winterkorn regarding quality issues, and Winterkorn usually followed up with Gottweis.

296. In Gottweis's memo, which Winterkorn took home to read as part of his "weekend suitcase," Gottweis discussed tests by US agencies in which the NOx output of TDI vehicles exceeded acceptable levels by up to 35 times. Gottweis told Winterkorn that there was no

legitimate explanation for either those excessive emissions levels or the defeat device that regulators would no doubt find upon examination.

297. Specifically, and as *Süddeutsche Zeitung* reported, Gottweis wrote that Volkswagen's US engineers could not provide an honest explanation for the heightened NOx emissions levels, and that "[n]o plausible explanation for the dramatically increased NOx emissions can be given to authorities." Gottweis warned that "[i]t is to be assumed that the authorities will subsequently examine VW systems to determine if Volkswagen has installed test recognition into the engine control unit software (a so-called defeat device)."

298. *Bild* also reported on February 14, 2016 that Winterkorn admitted, during a deposition as part of Jones Day's investigation into the Volkswagen emissions scandal, that by May 2014, he was aware of the problems regarding impermissibly high emissions levels in the TDI vehicles.

299. VW AG's, Winterkorn's, and Diess's failure to recognize provisions relating to Volkswagen's use of illegal defeat devices to circumvent emissions standards in the United States and elsewhere caused VW AG's operating profit, net assets, and shareholders' equity to be materially overstated and its liabilities to be materially understated in all of its financial statements issued during the Class Period.

300. Under IAS 37, VW AG, Winterkorn, and Diess were obligated to recognize provisions to account for those estimable liabilities that arose out of past events. VW AG, Winterkorn, and Diess should have recognized provisions in an amount representing the Company's best estimate of the expenditures required to settle its obligations. Because VW AG does not break out its provisions from its financial reporting in any particularized manner, it is impossible for Plaintiffs without more information to determine with certainty the precise amounts that should have been taken as provisions but were not. That information is uniquely in Defendants' possession and will be obtained during discovery. On information and belief, none of VW AG's financial statements issued during the Class Period included any provision relating to its use of illegal defeat devices to circumvent emissions standards, except for its Third Quarter

2015 Interim Report issued on October 28, 2015, which included an inadequate provision for the Company's liabilities arising from the diesel scandal.

- Volkswagen's use of the illegal defeat devices in each of its quarterly and annual financial statements issued during the Class Period. The losses relating to the use of defeat devices were "probable" under IAS 37 because it was more likely than not that the defeat devices would be discovered and that VW AG would incur enormous liabilities to address this self-inflicted problem. The losses were "reliably estimable" because VW AG knew the number of cars it sold in the United States and elsewhere and knew the penalties that governmental authorities would impose on VW AG when regulators discovered the defeat devices, as well as the likely amounts of its liabilities to purchasers of the cars. For example, as discussed above, Volkswagen, Winterkorn, and Diess knew that the EPA and CARB would impose per-vehicle penalties of \$37,500 and \$5,000, respectively, for the use of the illegal defeat devices. VW AG also could reliably estimate the cost of fixing or buying back the unlawful vehicles it sold to consumers. VW AG should have recognized a provision for these penalties and costs for every car sold with illegal defeat devices during every quarter during the Class Period.
- AG's financial services business, which agrees to buy back selected vehicles at a residual value that is fixed at the inception of the contract. VW AG stated in each of its annual reports during the Class Period that "[w]e evaluate the underlying lease contracts at regular intervals and recognize any necessary provisions if we identify any potential risks." VW AG should have recognized provisions during each quarter of the Class Period for the probable and reliably estimable loss it would incur when leased cars became substantially worthless as a result of the illegal defeat devices. On information and belief, VW AG did not recognize any provision for the residual value risk relating to the defeat devices during the Class Period.
- 303. Whatever the amount that VW AG ultimately provisioned to address its obligations arising from the diesel-emissions scandal, and whenever those provisions were recognized, the

amount was inadequate. In the late summer and early fall of 2015, VW AG recognized a €6.7 billion provision to cover only the actual costs of repairing affected vehicles (~€5.3 billion) and the decline in the residual values of those cars (~€1.3 billion). Those provisions, which did not include amounts such as the costs of auto buybacks and resolving any government investigations or civil lawsuits, represented approximately half of VW AG's 2014 net income. On January 11, 2016, Volkswagen CEO Müller stated the Company's belief that the €6.7 billion provision "should be enough." It was not until February 29, 2016, that VW AG admitted that its emissions scandal-related provisions "need to be increased." Then, on April 22, 2016, VW AG announced that it needed to set aside €16.2 billion (over \$18 billion) to fund the recall of millions of cars, legal claims, and related costs arising out of the diesel scandal, resulting in an operating loss of approximately €4.1 billion and a net loss of €5.5 billion for 2015.

### VII. DEFENDANTS' SCANDAL UNRAVELS AND THE TRUTH IS REVEALED

304. On Friday, September 18, 2015, the EPA and CARB announced that Volkswagen admitted to systematically defrauding investors and the public for years by deliberately cheating on US emissions tests and making its diesel vehicles appear cleaner and more powerful than they actually are. Specifically, on September 18, the EPA issued a Notice of Violation of the Clean Air Act to VW AG, Audi AG, and VWGoA, stating that Volkswagen and Audi cars equipped with four-cylinder 2.0 liter diesel engines from model years 2009–2015 included illegal software known as a "defeat device" that was specifically designed to circumvent EPA emissions standards. That same day, CARB sent a letter to VW AG, Audi AG and VWGoA advising that it had initiated an enforcement investigation of Volkswagen pertaining to the vehicles at issue.

305. As described in the NOV, Volkswagen's fraud was not only brazen but also broad. Volkswagen's misconduct affected approximately 585,000 diesel cars sold in the United States since 2008 and spanned several different Volkswagen car brands and numerous different Volkswagen models. The affected diesel vehicles include the: (1) Jetta (MY 2009–2015); (2) Jetta SportWagen (MY 2009–2014); (3) Beetle (MY 2012–2015); (4) Beetle Convertible (MY 2012–

2015); and (8) Passat (MY 2012–2015).

306. According to the NOV, Volkswagen utilized in each of these cars an illegal

2015); (5) Audi A3 (MY 2010–2015); (6) Golf (MY 2010–2015); (7) Golf SportWagen (MY

software algorithm that detects when the car is undergoing official emissions testing, and turns full emissions controls on **only during the test**. When the cars are being driven on the road—i.e., in all normal driving circumstances—the software shuts down, which greatly reduces the effectiveness of the vehicles' pollution emissions controls and increases the cars' performance. As a result of this algorithm, Volkswagen's diesel vehicles met emissions standards in the laboratory or testing station, but during normal operation, **emitted NOx at up to 40 times the legal limit**.

307. In light of the effect of the algorithm, the EPA determined that it was an illicit "defeat device" as defined by the Clean Air Act, and found that Volkswagen violated Section 203(a)(3)(B) of the Clean Air Act, 42 U.S.C. §§ 7522(a)(3), 7522(a)(1), 7522(a)(3)(B), as well as 40 C.F.R. §§ 86.1854-12(a)(3)(ii) and 86.1854-12(a). The EPA also found that Volkswagen's 2.0 liter diesel cars violated the US Tier 2, Bin 5 standard and were not able to comply with the Tier 3 standard as Volkswagen represented because, but for the installation and use of the defeat devices, the vehicles' emissions of NOx were 10 to 40 times above compliant levels. According to Cynthia Giles, the EPA's Assistant Administrator for the Office of Enforcement and Compliance Assurance, "[u]sing a defeat device in cars to evade clean air standards is illegal and a threat to public health."

308. Given the magnitude of the scandal as disclosed on September 18, 2015, VW AG reportedly faced up to \$18 billion in penalties for violations of the US Clean Air Act alone. Indeed, Tyson Slocum, Director of the Energy Program at Public Citizen, a consumer advocacy group, told the *New York Times* on September 18 that VW AG's misconduct is "several steps beyond the violations that we've seen from other auto companies. They appear to have designed a system with the intention to mislead consumers and the government." The disclosure of VW AG's admitted cheating on US emissions standards caused the price of Volkswagen's ordinary ADRs to decline from \$38.03 per ADR on September 17, 2015 to \$36.31 per ADR on September 18, 2015,

or approximately 5%. This disclosure also caused the price of Volkswagen's preference ADRs to decline from \$38.05 per ADR on September 17, 2015, to \$36.47 per ADR on September 18, 2015, or approximately 4%. Investors continued to assess and digest the significance of the announcement over the next several days, as additional information and details continued to be disseminated into the market.

- 309. On Sunday, September 20, 2015, then-CEO Winterkorn admitted that Volkswagen broke the public's trust by defrauding federal and state regulators, adding that he was "personally . . . deeply sorry for the breach of trust." According to Winterkorn, the Company's "manipulations . . . violate American environmental standards . . . [and] [w]e do not and will not tolerate violations of any kind of our internal rules or of the law." In addition to issuing a sweeping apology for lying to the public, also on September 20, Volkswagen halted US sales of its diesel-powered cars and launched an internal investigation into its misconduct. Volkswagen continued to sell its 3.0-liter diesel models, even though they contained similar, but not-yet-disclosed defeat devices.
- 310. The next day, on Monday, September 21, the US Department of Justice's ("DoJ") Environmental and Natural Resources Division opened a criminal probe into Volkswagen's admission that it rigged its diesel cars to beat emissions tests. Also on September 21, the German government stated that it would investigate whether VW AG manipulated emissions testing in Europe, and the US House of Representatives Energy Committee's Oversight Subcommittee announced plans to hold a hearing on the Volkswagen case.
- Volkswagen's actions. Stephan Weil, the prime minister of Lower Saxony, which owns 20% of the Company, issued a statement on September 21 that "[m]anipulation of an emissions test is completely unacceptable and without any justification." Deutsche Bank issued an analyst report on September 20, 2015 stating that "this appears to be intentional cheating" by Volkswagen. Further, Karl Brauer, an analyst at Kelley Blue Book, explained to the *New York Times* on September 21, 2015 that the Company "must have had a mix of performance, durability and

economy that they liked, but realized they couldn't achieve it and still get the emissions" without using the defeat devices. Indeed, Brauer added that "[n]ow, we have to wonder if the [diesel] technology really advanced as far as we thought at VW." According to a Commerzbank analyst report issued on September 21, 2015, "[i]n a nutshell, VW is violating the Clean Air Act [and] acknowledged that there might be wrongdoing by VW USA."

- 312. The additional disclosures regarding the significance of VW AG's admitted cheating on US emissions standards, including Defendant Winterkorn's public admission and apology, caused the price of Volkswagen's ordinary ADRs to decline from \$36.31 per ADR on September 18, 2015 to \$30.10 per ADR on September 21, 2015, or approximately 17%. This disclosure also caused the price of Volkswagen's preference ADRs to decline from \$36.47 per ADR on September 18, 2015, to \$29.77 per ADR on September 21, 2015, or approximately 18%.
- 313. On September 22, 2015, Volkswagen's emissions crisis deepened as it revealed that as many as 11 million vehicles worldwide contained the defeat devices used to evade emissions tests and that the Company would take a \$7.3 billion charge to earnings and cut its full-year outlook. Volkswagen recognized the \$7.3 billion provision in the "cost of sales" category of the Company's income statement for the third fiscal quarter of 2015, resulting in a dollar-for-dollar reduction in operating profit. Significantly, this \$7.3 billion charge includes only the cost of the software and hardware to update the defective vehicles, residual value risks for the Company's leasing portfolio, and a support fund for Volkswagen dealers. Not included in the \$7.3 billion provision, among other things, are the costs of any legal measures, penalties, or fines flowing from the scandal.
- 314. Winterkorn again acknowledged "misconduct" on September 22, and VWGoA's then-CEO, Defendant Horn, stated that "[o]ur company was dishonest with the EPA, and the [CARB] and with all of you . . . . [W]e've totally screwed up." Winterkorn also apologized again, stating that "[m]illions of people in the world trust our brand, our cars, and our technology. I am endlessly sorry that we have betrayed that trust."

Kevin Tynan, a Bloomberg Intelligence auto industry analyst, reported that "[w]hat is so damning is that this was something actively pursued. This isn't an oversight. Someone at VW had to decide that cheating the system was going to be a better use of time, money and resources than meeting regulatory requirements." Further, as *Deutsche Welle* reported on September 22, 2015, according to automotive expert Dudenhoeffer, Volkswagen knew the law in the United States and knew what defeat devices are. Dudenhoeffer opined that Volkswagen consciously violated US statutes and its misconduct could not have occurred by accident.

316. The disclosure of the increased breadth of Volkswagen's scandal caused the price of Volkswagen's ordinary ADRs to decline from \$30.10 per ADR on September 21, 2015 to \$25.44 per ADR on September 22, 2015, or approximately 16%. This disclosure also caused the price of Volkswagen's preference ADRs to drop from \$29.77 per ADR on September 21, 2015 to \$23.98 per ADR on September 22, 2015—a decline of nearly 20%.

317. Amidst Volkswagen's escalating scandal, the Company ousted CEO Winterkorn on September 23, 2015, and pledged to prosecute those involved in the scheme to cheat emissions tests. In a statement following his resignation, Winterkorn stated that he would "accept responsibility" for the "irregularities that have been found in diesel engines."

318. Indeed, Klaus Breitenbach, an analyst at Baader Helvea Equity research, wrote in a September 23, 2015 report that "it is difficult to understand why Mr. Winterkorn, who is well known for his attention to detail, had no knowledge of the irregularities which have been found in diesel cars." Further, Thomas Donaldson, a professor of legal studies and business at the Wharton School at the University of Pennsylvania, said that "[f]rom a man renowned for attention to detail, and a company itself known for highly centralized decision making, it's hard to think he didn't know." In a September 23, 2015 interview with *Berliner Morgenpost*, Dudenhoeffer opined that Winterkorn was responsible for the scandal and it was simply not conceivable that Winterkorn was not aware of the issues.

- 319. On September 24, 2015, Attorneys General from 27 US states announced that they opened an investigation into Volkswagen after it admitted that it rigged diesel emissions technology to pass US smog tests. Eventually, Attorneys General from each of the 50 states and the District of Columbia joined the investigation.
- 320. On September 25, 2015, the acting Chairperson of the VW AG Supervisory Board, Berthold Huber, announced that VW AG suspended a group of eight senior engineers pending proof of their innocence. The executives include Audi development chief Hackenberg, Volkswagen research and development head Neuβer, and Porsche development leader Hatz.
- 321. Also on September 25, VW AG's Supervisory Board named Matthias Müller, the head of Volkswagen's Porsche sports-car division, as CEO to replace Winterkorn. The Company's major shareholders also announced the most sweeping corporate restructuring that Volkswagen has undertaken in decades. When accepting the CEO position, Müller acknowledged Volkswagen's failings and stated in a VW AG press release that "[m]y most urgent task is to win back trust for the Volkswagen group," and announced that the Company hired US law firm Jones Day to conduct an investigation.
- 322. The German Minister of Transportation, Alexander Dobrindt, also disclosed on September 25 that of the 11 million rigged cars, nearly 3 million of them were sold in Germany. According to a September 25, 2015 *Wall Street Journal* report, when making the announcement, Dobrindt stated that "[t]he manipulations are inadmissible and illegal."
- 323. Further, on September 25, 2015, following the September 18 NOV issued for 2.0 liter diesel engines, the EPA initiated testing of all Volkswagen model-year 2015 and 2016 light-duty diesel models available in the United States using updated testing procedures specifically designed to detect potential defeat devices.
- 324. The announcement of Volkswagen's suspension of senior employees and the increased breadth of the EPA investigation caused the price of Volkswagen's ordinary ADRs to drop from \$27.16 per ADR on September 24, 2015 to \$25.68 per ADR on September 25, 2015, or

over 5%, and the price of its preference ADRs to drop from \$25.53 per ADR on September 24, 2015 to \$23.98 per ADR on September 25, 2015, or approximately 6%.

- 325. The fact that the Company's senior management knew of the emissions scandal long before it was disclosed to the public was further confirmed on September 26, 2015. On that day, the German newspaper *Frankfurter Allgemeine Zeitung*, based on information it learned stemming from VW AG's internal investigation, reported that VW AG's own technicians warned the Company **at least as early as 2011** about the illegality of its emissions practices, as discussed more fully above.
- 326. Corroborating Frankfurter Allgemeine Zeitung's report, on Sunday, September 27, 2015, Bild reported that Bosch warned Volkswagen's "top circles" as early as 2007 not to use the devices for illegal purposes. In particular, while Bosch provided EDC17 to VW AG, Bosch was under the impression that EDC17 would be used only in internal vehicle testing. But VW AG affirmatively modified the module to detect when a vehicle was undergoing laboratory emissions testing and then shut down when the vehicle was on the road. Bild also reported that Bosch told Volkswagen that the Company's plans for the use of the software were, in fact, "illegal." Further, according to Bild, Volkswagen knew even before 2007 that its diesel engines developed for the US market would not meet emissions standards unless they used a different engine technology, which would have added a cost of  $\in$ 300 per vehicle a sum that Volkswagen finance officials said was too much at a time when a Company-wide cost-cutting exercise was underway.
- 327. The next day, on Monday, September 28, 2015, prosecutors in Germany announced that they opened a specific criminal investigation into former CEO Winterkorn and other unnamed Volkswagen executives to determine whether they committed fraud through the sale of vehicles with manipulated emissions data. The disclosures on September 26 through 28 caused the price of Volkswagen's ordinary ADRs to decline from \$25.68 per ADR on September 25, 2015 to \$23.97 per ADR on September 28, 2015, or almost 7%. The disclosures also caused the price of Volkswagen's preference ADRs to drop from \$23.98 per ADR on September 25, 2015 to \$22.39 per ADR on September 28, 2015, a similar 7% decline.

328. On September 29, 2015, Olaf Lies, a VW AG Board member and Economy Minister of Lower Saxony admitted to the BBC that VW AG staff "acted criminally" based on their role in cheating emissions tests, and that they "must take personal responsibility." Also on September 29, *Süddeutsche Zeitung* reported that a VW AG technician warned Neuβer, the former head of the VW AG engine development department, about the illegality of the emission practices as early as 2011, but was disregarded.

329. On October 2, 2015, VW AG's scandal widened as France and Italy launched probes into the Company to investigate suspicions of "aggravated deception," among other things. Further, the *New York Times* reported on October 2 that Attorneys General from at least 30 states and the District of Columbia were quickly progressing with their bipartisan investigation into allegations of consumer fraud and violation of environmental regulations by Defendants, and that they had served subpoenas on the Company and its divisions. This news caused the price of Volkswagen ordinary ADRs to decline from \$23.72 per ADR on October 1, 2015 to \$23.07 per ADR on October 2, 2015, or approximately 3%. This disclosure also caused the price of Volkswagen preference ADRs to decline from \$21.75 per ADR on October 1, 2015 to \$20.99 per ADR on October 2, 2015, or approximately 3%.

330. On October 8, 2015, Defendant Horn testified under oath before the House Committee on Energy and Commerce Subcommittee on Oversight and Investigations and admitted that Volkswagen used "a software program that served to defeat the regular emissions testing regime," and took "full responsibility for our actions." According to Horn, the emissions cheating software was installed "for the express purpose of beating tests" in light of tightened emissions standards.

331. Critically, Defendant Horn admitted on October 8 that he knew of the emissions non-compliance "in the spring of 2014 when the West Virginia University study was published." The Volkswagen Group's actions, according to Horn, "are deeply troubling. . . . We have broken the trust of our customers, dealerships, and employees, as well as the public and regulators." Horn continued that "[w]e are determined to make things right. This includes

accepting the consequences for our acts, providing a remedy, and beginning to restore the trust of our customers, our employees, the regulators, and the American public."

- 332. Also on October 8, prosecutors in Germany raided Volkswagen's headquarters in Wolfsburg and offices elsewhere, seeking records regarding the emissions scandal. According to the prosecutor's office in Braunschweig, Germany, which is overseeing the probe, three state attorneys and 50 state police officers raided Volkswagen offices and private homes in order to secure documents and data-storage devices that could provide information about those responsible for the emissions scandal.
- 333. On October 14, 2015, Winfried Vahland, who spent 25 years at Volkswagen including leading Volkswagen's Skoda unit until he was appointed to head Volkswagen's North America division on September 25, 2015, suddenly resigned.
- 334. On October 15, 2015, the Company suspended Falko Rudolph, the head of its main transmissions plant in Kassel, Germany. Rudolph, who previously ran Volkswagen's main engines plant in Salzgitter, oversaw the development of diesel engines at Volkswagen between 2006 and 2010.
- 335. Also on October 15, 2015, Germany's ministry for transport ordered Volkswagen to conduct a mandatory recall of the 2.4 million cars in Germany, and consequently, all 8.5 million cars in Europe implanted with its emissions-cheating technology. Under EU rules, cars that are cleared (or not cleared) to operate in one country are automatically approved (or not approved) across the European Union, so the recall in Germany also affects the approval of vehicles elsewhere in the Union. The disclosures on October 15 caused the price of Volkswagen ordinary ADRs to decline from \$29.24 per ADR on October 14, 2015 to \$28.19 per ADR on October 15, 2015, or approximately 4%. These disclosures also caused the price of Volkswagen preference ADRs to decline from \$24.55 per ADR on October 14, 2015 to \$23.54 per ADR on October 15, 2015, or approximately 4%.
- 336. On October 16, 2015, the US Attorney's Office in Detroit and the DoJ's Fraud Section joined the sweeping federal probes of VW AG over emissions-test cheating.

On October 20, 2015, VW AG suspended its quality-control chief Tuch, the fifth

337.

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senior executive to be put on leave in connection with the emissions-cheating scandal. Winterkorn hand-picked Tuch in 2010 to head the Company's quality-control department. At the time of Tuch's appointment, Winterkorn said the quality-control expert "will bring us forward in the U.S.A." Tuch and Winterkorn worked together closely, and met together every Monday to discuss quality issues, often taking test drives in vehicles manufactured by the Company.

338. On October 21, 2015, the *Financial Times* reported that VW AG suspended Richard

- 338. On October 21, 2015, the *Financial Times* reported that VW AG suspended Richard Dorenkamp, former head of technical development for low-emission engines, and that Peter Doerfler, head of group auditing and Volkswagen's anti-corruption officer, was also being replaced.
- 339. On October 22, 2015, *Bild* reported that top management at Volkswagen knew about problems with emissions levels of diesel vehicles at least as early as the spring of 2014. Specifically, at that time, then-CEO Winterkorn discussed the issues with the Company's diesel cars as raised by a letter sent by the EPA. Further, according to *Bild*, Neuβer also received information from the United States in the spring of 2014 regarding possible violations of US emissions standards.
- 340. Further, on October 25, 2015, the Company suspended Hanno Jelden, Volkswagen's head of powertrain electronics, in connection with the emissions scandal. In addition to these senior executives, Volkswagen also suspended numerous other unspecified employees—ranging from board-level executives at Volkswagen divisions to technicians who may be implicated in the scandal—at the recommendation of Jones Day.
- 341. Significantly, even after the EPA issued the NOV on September 18, 2015 and governments and regulators across the globe initiated investigations into the Company, Volkswagen still concealed the true extent of its misconduct. On November 2, 2015, the EPA issued a second NOV of the Clean Air Act to VW AG, Audi AG, VWGoA, Porsche AG, and Porsche Cars North America. This NOV stated that Volkswagen developed and installed a defeat device in larger vehicles equipped with 3.0-liter diesel engines for model year 2014 through 2016

that masked the fact that the cars emitted NOx at up to nine times EPA's standard, in violation of US Tier 2, Bin 5. The affected diesel models include the (1) 2014 VW Touareg; (2) 2015 Porsche Cayenne; and (3) 2016 Audi A6 Quattro, A7 Quattro, A8, A8L and Q5. In total, the second NOV covers approximately 10,000 diesel passenger cars already sold in the United States, as well as an unknown number of 2016 vehicles. EPA and CARB also began an investigation into these violations.

- 342. While under the first NOV, Volkswagen was thought to have cheated only on tests for small and mid-sized diesel-powered vehicles, the second NOV covers large Volkswagen SUVs, such as the Touareg, Porsche Cayenne, and Audi Q5 and Q7.
- 343. Similar to the September 18 NOV, the November 2 NOV states that Volkswagen manufactured and installed software in the electronic control module of these vehicles that senses when the vehicle is being tested for compliance with EPA emissions standards. When the vehicle senses that it is undergoing a federal emissions test, it operates in a low NOx "temperature conditioning" mode. Under that mode, the vehicle meets emission standards. In all other driving conditions, the cars operate in "normal mode" and emit NOx at up to nine times the EPA standard. Given the effect this software had on the emissions for Volkswagen's 3.0 liter diesel engines, the EPA determined that it was an unjustified and illegal defeat device. According to Cynthia Giles, Assistant Administrator for the EPA's Office of Enforcement and Compliance Assurance, "VW has once again failed its obligation to comply with the law that protects clean air for all Americans."
- 344. The disclosure of the second NOV caused the price of Volkswagen ordinary ADRs to decline from \$27.00 per ADR on November 2, 2015 to \$25.49 per ADR on November 3, 2015, or approximately 6%. This disclosure also caused the price of Volkswagen preference ADRs to decline from \$24.12 per ADR on November 2, 2015 to \$23.20 per ADR on November 3, 2015, or approximately 4%.
- 345. On November 3, Volkswagen, Porsche and Audi ordered dealers to stop selling all models at issue in the second NOV.

346. On November 8, 2015, Volkswagen announced a "goodwill package" for owners of its diesel vehicles. The package consisted of a \$500 prepaid Visa card, a \$500 dealership card, and three years of free roadside assistance services. According to US Senators Richard Blumenthal and Edward Markey, Volkswagen's consumer program was "insultingly inadequate" and "a fig leaf attempting to hide the true depths of Volkswagen's deception."

- 347. On November 19, 2015, Volkswagen officials informed the EPA that the illegal defeat devices existed in all of the Company's US 3.0-liter diesel models since 2009. This increased the number of 3.0-liter diesel engine cars implicated by the EPA's second NOV issued to Volkswagen on November 2 by approximately 850%, from 10,000 vehicles to 85,000 vehicles, while the violations that the EPA had previously alleged—most from the last couple of model years—now go much further. Now the violations include all Volkswagen and Audi US vehicles with 3.0-liter diesel engines from the 2009–2016 model years.
- 348. Further, on December 1, 2015, the *New York Times* reported that the German Federal Motor Transport Authority, Kraftfahrt-Bundesamt (the "KBA"), determined that the software that Volkswagen installed in its diesel cars in Europe constituted an illegal defeat device and, consequently, violated Euro-5 rules.
- 349. On December 3, 2015, Hackenberg resigned as top manager of the Audi luxury-car division and as one of the most prominent executives of the Volkswagen Group as a whole. Hackenberg was the first Volkswagen executive to officially step down since Winterkorn resigned.
- 350. On December 10, 2015, Poetsch, the Chairman of Volkswagen's Supervisory Board, provided an update with regard to the Company's internal investigation. Thus far, the investigation has confirmed that the Company's decision to cheat emissions tests was made more than a decade ago, in 2005, after Volkswagen realized that it was unable "to meet by legal means the stricter nitrogen oxide requirements in the United States within the required timeframe and budget." Poetsch stated that the cheating took place in a climate of lax ethical standards and that "[t]here was a tolerance for breaking the rules." "It proves not to have been a one-time error, but rather a chain of errors that were allowed to happen."

- 351. Then, on January 4, 2016, the DoJ filed a complaint on behalf of the EPA against VW AG, Audi AG, VWGoA, Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. h.c. F. Porsche AG, and Porsche Cars North America, Inc. for violations of Sections 204 and 205 of the Clean Air Act, 42 U.S.C. §§ 7523 and 7524, arising out of Volkswagen's emissions scandal. The DoJ complaint alleges that the defendants violated the Clean Air Act by illegally selling approximately 580,000 vehicles equipped with 2.0 and 3.0 liter diesel engines that were not properly certified by the EPA and violated environmental laws; tampering with the emissions-control system; failing to report violations to regulators; and providing misleading information and affirmative misrepresentations to regulators.
- 352. Significantly, the DoJ complaint also states that even though Volkswagen promised to take responsibility for its actions, it continued to "knowingly conceal[] [from the US government] facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles . . . and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal those facts." Indeed, even after the EPA issued its September 18 NOV to Volkswagen and Defendant Horn testified before Congress, Volkswagen failed to come forward and reveal to regulators that the 3.0L vehicles contained defeat devices. The existence of the defeat devices was uncovered only as a result of EPA and CARB diligence. A senior DoJ official told *Reuters* on January 5, 2016 that "[w]e're alleging that they knew what they were doing, they intentionally violated the law and that the consequences were significant to health."
- 353. The DoJ's suit seeks up to \$48 billion in damages—more than twice the maximum amount some legal experts had estimated. According to an analyst report issued by Goldman Sachs, the suit "serves as a reminder/reality check of VW's still unresolved emissions issues."
- 354. The disclosure of the DoJ's lawsuit caused the price of Volkswagen ordinary ADRs to decline from \$30.10 per ADR on January 4, 2016 to \$28.34 per ADR on January 5, 2016, or approximately 6%. Similarly, this disclosure caused the price of Volkswagen's preference ADRs

to decline from \$27.30 per ADR on January 4, 2016 to \$26.16 per ADR on January 5, 2016, or approximately 4%.

#### VIII. POST-CLASS PERIOD DEVELOPMENTS

355. On January 12, 2016, CARB rejected Volkswagen's proposal to recall and remedy the Company's diesel cars equipped with 2.0-liter engines, finding that the plans were "incomplete, substantially deficient, and fall far short of meeting the legal requirements to return these vehicles to the claimed certification configuration." CARB also issued an NOV to VW AG and VWGoA on January 12, explaining that the Company's 2.0-liter diesel vehicles certified under LEV, LEV II, LEV III, ULEV, and ULEV II did not meet emissions standards. Following the rejection, CARB Chair Mary D. Nichols stated that "Volkswagen made a decision to cheat on emissions tests and then tried to cover it up. They continued and compounded the lie and when they were caught they tried to deny it. The result is thousands of tons of nitrogen oxide that have harmed the health of Californians. They need to make it right. Today's action is a step in the direction of assuring that will happen."

356. On January 22, 2016, the German newspaper Süddeutsche Zeitung reported that "almost all executives involved in the emissions problems in the engine development knew about the manipulations or even were involved in it. In the relevant department, it had been no secret that this was the only way VW could officially meet the emission limits for nitrogen oxide in the emissions test of the authorities in the United States and Europe. Many employees and managers in this division were privy to this." According to the report, one whistleblower involved in the deception had alerted Neußer as early as 2011, but Neußer apparently did nothing. Süddeutsche Zeitung based this report on information from Volkswagen's internal investigation, which had not yet been made public—and which VW AG has since said, contrary to its prior assurances, will never be made public.

357. On February 4, 2016, Volkswagen announced that it replaced the head of VWGoA's legal department, David Geanacopoulos, who was also the head of VWGoA's public affairs department. CARB also told Volkswagen on February 4 that the Company's 3.0 liter cars

produced excess emissions and were otherwise noncompliant under applicable California standards.

- 358. On February 8, 2016, VW AG's Head of Quality Assurance, Tuch—who was appointed by Winterkorn in 2010—announced that he would leave the Company.
- 359. On March 2, 2016, VW AG issued a press release stating that it concealed its fraud because it believed that fines in only a "two-digit or lower three-digit million amount would be imposed" and that the issue "could be contained" by "technical solutions." In other words, Volkswagen continued to defraud investors because it thought it could get off cheap—or for nothing if Volkswagen's misconduct slipped through the cracks.
- 360. VW AG also confirmed that the diesel scandal began as early as 2005, when the Company decided to begin a major push to increase market share in the United States through the use of purportedly "clean diesel" technology. Because Volkswagen was unable to meet the United States' strict emissions standards, the Company decided to cheat and install defeat devices in its diesel cars. Volkswagen also confirmed that Winterkorn received a memo on May 23, 2014 regarding the defeat devices, as well as a second memo on November 14, 2014 that warned the then-CEO that Volkswagen could face a fine of approximately €20 million arising out of the diesel scandal in the United States. Then, according to Volkswagen, on July 27, 2015, Defendants Winterkorn and Diess attended a meeting at which they specifically discussed the diesel issues. Still, no disclosure was made to investors.
- 361. On March 7, 2016, prosecutors in France announced that they had opened a serious-fraud investigation into Volkswagen over the devices the automaker fitted into cars to cheat on emissions tests. According to Serious Fraud Office Chief Nathalie Homobono, investigators had already established that Volkswagen had cheated "with intent" and that the Company's actions were "intentional."
- 362. That same day, a former VWGoA employee who worked in Michigan, Daniel Donovan, filed a complaint against VWGoA claiming that he was wrongfully terminated in retaliation for reporting and objecting to the intentional spoliation of evidence by VWGoA. *See*

Donovan v. Volkswagen Grp. of Am., Inc., 2016-151877-CD (Mich. State Oakland Cnty. filed Mar. 7, 2016). According to Donovan's complaint, he was fired for refusing to participate in what he believed was a criminal obstruction of justice in connection with VWGoA's gathering and preservation of evidence relating to the EPA's September 18, 2015 NOV. Specifically, VWGoA's information technology department knew that it was required to immediately cease deleting all information on September 18, but did not stop the deletions until September 21, 2015—three days after the issuance of the NOV. When Donovan relayed the presence of the legal hold to VWGoA's Executive Vice President and Chief Information Officer on September 18, rather than execute the hold, the Chief Information Officer simply responded with irritation and asked Donovan, "Why the f\*\*\* are you calling me?"

- 363. On March 8, 2016, the *Wall Street Journal* reported that the DoJ was expanding its probe of VW AG using the Financial Institutions Reform, Recovery and Enforcement Act ("FIRREA"), which is designed to combat bank fraud. The DoJ issued a subpoena to Volkswagen under FIRREA to investigate possible violations of tax laws, among other matters, including whether lenders were harmed by financing customers' purchases of Volkswagen cars at inflated values. Federal prosecutors are also examining whether Volkswagen may be legally and financially liable for customers who obtained tax credits when they bought cars they thought emitted fewer pollutants than the cars actually did.
- 364. Also on March 8, 2016, German prosecutors announced that they widened their criminal investigation of VW AG's diesel emissions-cheating scandal to cover 17 people, up from 6.
- 365. On March 9, 2016, Defendant Horn resigned as President and CEO of VWGoA, after spending 25 years at Volkswagen.
- 366. Shortly after his resignation, on March 10, 2016, the *Financial Times* reported that the May 15, 2014 email sent to Defendant Horn (summarized by *Bild* on February 14, 2016) attached a letter stating that 500,000–600,000 cars in the United States from model years 2009–2014 could be affected by the diesel scandal. Significantly, the letter also enumerated the potential

fines of "EPA: \$37,500, and CARB: \$5,500" per violation and specifically warned Horn that given the potential level of penalties, "[t]he contents of this [ICCT] study cannot be ignored!" Indeed, if 500,000–600,000 cars were installed with defeat devices, under Volkswagen's own analysis, Horn knew at least as early as May 15, 2014 that Volkswagen's illicit practices could cost Volkswagen between \$21.5 and \$25.8 billion just in fines from EPA and CARB.

367. On March 29, 2016, the Federal Trade Commission filed a complaint against VWGoA, VWGoA d/b/a/ VWoA, and VWGoA d/b/a AoA seeking a permanent injunction and other equitable relief arising out of the defendants' "deceptive representations" and "deceptive failure to disclose" in marketing materials for Volkswagen's diesel cars. *See FTC v. Volkswagen Grp. of Am., Inc.*, 16-cv-1534 (C.D. Cal. filed Mar. 29, 2016). According to the complaint, for years Volkswagen ran nationally televised advertisements and national print and online media campaigns and issued press releases and other public statements that touted the Company's "clean diesel" technology. Volkswagen's marketing campaign further emphasized that its "clean diesel" vehicles reduced NOx emissions by 90%, that they met the strictest EPA standards, and that they were environmentally friendly. In truth, Volkswagen knew that its "clean diesel" cars did not reduce NOx emissions by 90%, violated EPA standards, and were anything but environmentally friendly. Volkswagen was able to justify its fraudulent claims only by fitting its vehicles with illegal defeat devices designed to understate the true levels of emissions during regulatory tests.

- 368. On April 13, 2016, VW AG's Management Board accepted bonus cuts of at least 30% in a tacit acknowledgement that they are responsible for the scandal.
- 369. On April 20, 2016, *Reuters* reported that VW AG and US officials reached a deal under which VW AG would offer to buy back almost 500,000 2.0-liter diesel cars that used the emissions-cheating devices. This includes versions of the Jetta sedan, the Golf compact, and the Audi A3 sold since 2009. According to *Reuters*, the buyback offer does not apply to the 80,000 larger, 3.0-liter diesel vehicles that also exceeded US pollution limits, including Audi and Porsche SUV models. In addition to buying back the cars, VW AG also agreed to establish a compensation fund for owners, which is expected to cost more than \$1 billion on top of the costs of buying back

the cars. Volkswagen was also expected to offer to repair polluting diesel vehicles if US regulators approved a fix. Further, *Reuters* reported that any final settlement was also expected to include an environmental-remediation fund to address excess pollution emitted by Volkswagen cars since 2009.

- 370. Separately, *Die Welt* also reported on April 20 that the deal to settle the case would involve paying each affected customer up to \$5,000. After considering the costs of resolving this aspect of the scandal, according to another *Reuters* report issued on April 20, VW AG was expected to hike its provisions arising out of the diesel-emissions scandal from \$7.6 billion to a "double-digit billion amount."
- 371. Then, on April 21, 2016, Volkswagen formally announced before the Court that it reached an agreement in principle with US regulators to buy back 500,000 2.0-liter diesel vehicles, along the lines of the deal announced by *Reuters* on April 20. The settlement did not address the 3.0 liter diesel vehicles in the United States, as noted above, and also left open the question as to the Company's liabilities for fixing the over 10 million diesel vehicles in Europe that are affected by the cheating. Volkswagen and the United States are also still negotiating the fines that Volkswagen must pay, as well as the compensation that owners will receive under the deal. Nearly every US state Attorney General is also still pursuing claims against Volkswagen, as are private plaintiffs and the DoJ.
- 372. In addition to the partial settlement with US authorities, Volkswagen also announced on April 21 that it reached an agreement in principle on the basic features of a settlement with the civil class-action plaintiffs representing purchasers, lessees, and dealers of Volkswagen cars.
- 373. The next day, on April 22, VW AG published its consolidated financial statements for 2015. Specifically, VW AG disclosed that it needed to set aside €16.2 billion (over \$18 billion) in special items to fund the recall of millions of cars, legal claims, and related costs arising out of the diesel scandal, resulting in an operating loss of approximately €4.1 billion and a net loss of €5.5 billion for 2015.

374. Also on April 22, VW AG announced that the Jones Day investigation would not conclude until the fourth quarter of 2016, and did not provide a timeline for the release of any results of the report (if results were ever released at all, which VW AG has since said they will not be). Even though VW AG had in its possession interim results of the investigation (and had promised to release the results by late April 2016), it claimed it was unable to release them because doing so "would present unacceptable risks for Volkswagen and, therefore, cannot take place now."

Volkswagen's legal department who asked colleagues in August 2015 to delete "incriminating material" regarding the emissions fraud. *Bild*'s report is based on testimony given to Jones Day during the course of its investigation into the Company. Specifically, following a meeting of Volkswagen's Product Safety Committee on August 24, 2015, the unnamed lawyer (given the pseudonym "Christoph R.")—who has since been suspended for months—told colleagues to delete sensitive data from computers. According to *Bild*, several confidential documents can no longer be found on the Company's systems. This lawyer also advised colleagues in the summer of 2015 to avoid the words "defeat device" in written statements. Only on September 1, 2015, a week after the senior Volkswagen lawyer told colleagues to scrub information from their computers, did Volkswagen issue its litigation hold. Significantly, the lawyer who told colleagues to delete the "incriminating material" is the same lawyer who issued the litigation hold to Volkswagen employees.

376. VW AG has since admitted, in connection with its guilty plea to obstruction of justice, that in August and September 2015, VW AG and Audi AG employees destroyed documents and files related to US emissions issues that they believed would be covered by the litigation hold. VW AG employees also requested that their counterparts at "Company A" (Bosch) destroy sensitive documents related to US emissions issues. VW AG has also admitted that the employees who participated in this document destruction did so to protect both VW and themselves from the legal consequences of their actions. Within VW AG and Audi AG, thousands

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of documents were deleted by approximately 40 VW AG and Audi AG employees, including by high-level VW AG executives. (SOF ¶¶73-81.)

377. In particular, VW AG has admitted that "[o]n or about September 3, 2015"—two days after the litigation hold at VW AG was issued—"Supervisor A [Neußer] approached Supervisor D [Eichler]'s assistant, and requested that Supervisor D's assistant search in Supervisor D's office for a hard drive on which documents were stored containing emails of VW AG supervisors, including Supervisor A. Supervisor D's assistant recovered the hard drive and gave it to Supervisor A. Supervisor A later asked his assistant to throw away the hard drive." (SOF ¶79.)

378. Bild further reported on May 7, 2016 that Volkswagen had for many years misled authorities and misrepresented emissions data with the knowledge of former CEO Winterkorn. Specifically, in November 2013, the Company's Quality Assurance Department warned Winterkorn of a "borderline consumption situation" with regard to carbion dioxide ("CO2") emissions of Volkswagen cars. According to Volkswagen's analysis, many of its car models met CO2 requirements only under the "best possible test conditions." During a "real-life test," the CO2 emissions and fuel consumption rose by 10% to 18%, and did not meet CO2 requirements or the CO2 values set in Volkswagen's catalogues. The "action recommendation" that Volkswagen's Quality Assurance Department gave to Winterkorn was to set "realistic CO2 catalogue values" in the future.

379. Winterkorn, however, blatantly disregarded this recommendation. Rather than correct the embellished consumption data, on July 17, 2014, Winterkorn ordered subordinates to close the "target gap between labelling and measured consumption" with unnamed and unknown technical innovations to be developed in the future. This was despite the fact that an internal Volkswagen analysis conducted in July 2014 showed that "since the market year 2012, the critical consumption concepts (CO2) are rising significantly." In fact, Volkswagen engineers prepared a crisis report in November 2014 which explained that "disproportionate increase of the red concepts (CO2 > 108%). All Polo diesel concepts are red. Situation is no longer manageable. No reporting to KBA possible. Possible withdrawal of affected type permits."

380. On September 9, 2016, VW AG engineer James Liang pleaded guilty to conspiring to defraud the United States, to commit wire fraud, and to violate the Clean Air Act with regard to Volkswagen's "clean diesel" vehicles. In his plea agreement, Liang admitted that in or around 2008, he planned and employed the defeat device software in Volkswagen vehicles because the EA 189 engine "could not meet both customer expectations as well as new, stricter U.S. emissions standards." (Liang Plea Agreement p. 5; attached as Exhibit 4.) Liang knew "that EPA would not certify vehicles for sale in the United States if EPA knew that the vehicles contained a defeat device." (Id.) Nevertheless, "[a]s part of the certification process for each new model year, including model years 2009 through 2016, Liang knew his co-conspirators continued to falsely and fraudulently certify to EPA and CARB that VW diesel vehicles met U.S. emissions standards and complied with the Clean Air Act." (Id. p. 6.) And in the spring of 2014, when U.S. regulators learned of "substantial discrepancies in the NOx emissions from certain VW vehicles when tested on the road compared to when these vehicles were undergoing EPA standard drive cycle tests on a dynamometer" and sought an explanation for the issue, "Liang and his co-conspirators discussed how they could answer the regulatory agencies' questions without revealing the defeat device," and Liang knew that "his co-conspirators intentionally made fraudulent explanations to the EPA and CARB when providing testing results, data, presentations, and statements to the EPA and CARB by failing to disclose the fact that the primary reason for the discrepancy was the defeat device." (*Id.* pp. 6-7.)

381. Liang's plea agreement also states that in addition to his role at VW AG, Liang was the Leader of Diesel Competence for VWGoA from about May 2008 until the date of his plea. (*Id.* at 5.) In his role at VWGoA, Liang assisted in certification, testing, and warranty issues for Volkswagen diesel vehicles in the United States. (*Id.*) In addition, Liang personally attended a meeting with EPA in Ann Arbor, Michigan in March 2007 and participated as his co-conspirators misrepresented that Volkswagen's diesel cars complied with US NOx emissions standards. (*Id.* at 6.) During the meeting, Liang "knew that VW was cheating by implementing the defeat device and that he and his co-conspirators were deceiving EPA in this meeting." (*Id.*)

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382. On December 30, 2016, the United States filed criminal charges against Oliver Schmidt for his role in perpetrating Volkswagen's emissions scheme. According to the criminal complaint, Schmidt "knowingly participat[ed] in a conspiracy which lasted from in or about May 2006 to at least September 2015 . . . to: (1) defraud the United States by impairing and impeding the lawful functions of the EPA . . . ; (2) defraud VW customers . . . ; and (3) violate the Clean Air Act by making a material statement, representation, or certification . . . required pursuant to the Clean Air Act . . . ." (Crim. Cmplt. ¶4.) Specifically, the United States alleged that Schmidt "intended to, and did, deceive and mislead U.S. regulators by offering reasons for the discrepancy [in Volkswagen "clean diesel" cars' emissions when being driven on the road as opposed to during standard U.S. emissions tests] other than the fact that VW was intentionally cheating on U.S. emissions tests, in order to allow VW to continue to sell diesel vehicles in the United States." (*Id.* ¶5.)

383. On January 11, 2017, VW AG pleaded guilty to criminal and civil charges of conspiracy to commit wire fraud and to violate the Clean Air Act, importing cars by means of false statements, and obstruction of justice for its role in orchestrating the emissions-cheating scandal. To resolve the charges, VW AG agreed to pay \$4.3 billion in penalties—one of the largest such penalties in history. In addition, federal prosecutors announced similar criminal charges against six VW AG executives for their roles in the scheme: (1) Richard Dorenkamp; (2) Heinz-Jakob Neuβer; (3) Jens Hadler; (4) Bernd Gottweis; (5) Oliver Schmidt; and (6) Jürgen Peter. One of those executives, Schmidt—a top emissions-compliance manager for Volkswagen in the United States—was arrested in Florida on a charge of conspiracy to defraud the United States. The other executives reportedly reside in Germany and have been advised not to travel to the United States.

384. Then, on January 27, 2017, the *Wall Street Journal* reported that German prosecutors widened their probe into Volkswagen's diesel emissions-cheating scandal and that investigators have found evidence that former CEO Winterkorn may have known about the use of the illegal software and its impact on emissions tests earlier than Winterkorn previously acknowledged. Reuters reported on the same day that "Braunschweig prosecutors said [that day]

they had searched 28 homes and offices in connection with their investigation this week. The number of people accused in connection with the emissions scandal had risen to 37 from 21, including Winterkorn." Reuters quoted the prosecutors as stating that "'[s]ufficient indications have resulted from the investigation, particularly the questioning of witnesses and suspects as well as the analysis of seized data, that the accused (Winterkorn) may have known about the manipulating software and its effects sooner than he has said publicly."

385. On February 1, 2017, VW AG and VWGoA announced that they had reached proposed settlements with private plaintiffs and the FTC to resolve civil claims regarding approximately 78,000 3.0 liter TDI vehicles in the United States—all 3.0 liter TDI V6 diesel engine vehicles that Volkswagen, Audi, or Porsche marketed or sold in the United States for MY 2009 through 2016. Under the proposed settlements, Volkswagen is to make cash payments to all eligible members of the class; recall and repair, free of charge to the customer, approximately 58,000 affected 3.0 liter vehicles; and buy back or offer trade-in credit of equal value for, or terminate the leases of, approximately 20,000 affected 3.0 liter vehicles. Volkswagen stated that it expects to pay approximately \$1.2 billion under these settlements.

#### IX. ADDITIONAL ALLEGATIONS OF DEFENDANTS' SCIENTER

386. As alleged in this Complaint, Volkswagen and the Officer Defendants engaged in a decade-long scheme to defraud investors through numerous materially false and misleading representations and omissions, as well as to violate governing emissions standards and defraud consumers. Defendants, when they committed that misconduct, acted with scienter in that they knew, or recklessly disregarded, that the public documents and statements issued or disseminated in the name of VW AG, VWoA/VWGoA, and AoA detailed in Section X below were materially false or misleading, and knowingly and substantially participated or acquiesced in the issuance or dissemination of those statements or documents as primary violators of the federal securities laws. The allegations detailing Defendants' fraudulent scheme, detailed in Section VI above, are incorporated in this Section by reference and provide powerful evidence of Defendants' scienter. Other facts evidencing Defendants' scienter are alleged below.

387. At all relevant times, Defendants were aware or, alternatively, recklessly disregarded that (i) approximately 11 million of Volkswagen's vehicles worldwide contained illegal defeat-device software that had no proper or lawful purpose, but enabled the vehicles to pass emissions tests while far exceeding emissions limits under real-world, on-road driving conditions; (ii) Volkswagen pursued and met its aggressive US growth goals through a concerted effort to market and sell approximately 585,000 purportedly "clean diesel" cars that failed to comply with governing federal and state emissions standards; and (iii) Volkswagen significantly overstated its profits by failing to properly record provisions for the Company's inevitable massive liability arising out of its fraudulent misconduct.

388. **First**, VW AG has admitted that it defrauded consumers and misled regulators. Among other things, Defendants have stated that "these vehicles were designed and manufactured with a defeat device to bypass, defeat, or render inoperative elements of the vehicles' emissions control system" and "[w]e have admitted it to the regulator. It is true." Defendant Winterkorn apologized that VW AG had "broken the trust of our consumers and the public." And Defendant Horn admitted that "our company was dishonest. With the EPA, and [CARB], with all of you. . . . [W]e have totally screwed up." VW AG has admitted that "Supervisors A [Neuβer] and C [Hadler] and others marketed, and caused to be marketed, the Subject Vehicles to the U.S. public as 'clean diesel' and environmentally-friendly, when they knew the Subject Vehicles were intentionally designed to detect, evade and defeat U.S. emissions standards" (SOF ¶44), and that VW AG is responsible for these employees' actions under US law (SOF p. 2-1).

389. **Second**, as VW AG has admitted, its top executives, including Defendant Winterkorn, knew of and received reports concerning the Company's use of defeat-device software and VW AG's attendant financial and legal exposure. As early as 2007, Bosch warned VW AG's top executives, including Winterkorn, that the Company's intended use for its emissions-regulating software was illegal. In 2011, an internal whistleblower warned the Company, including Winterkorn's confidant and Volkswagen's then-head of development Neuβer, that the Company was illegally manipulating reported emissions data.

390. Reports indicate that "top management at VW knew about the existence of a US probe for more than year before it went public—but apparently did little to address the situation." Indeed, the Company has admitted, and Winterkorn reportedly confirmed in deposition testimony, that Winterkorn received a memorandum in May 2014 from Volkswagen's "fireman" Gottweis, whose job was to "sound the alarm" when crises emerged. The May 2014 memo detailed the Company's use of defeat devices and the lack of any defensible, honest explanation for the defeat devices when regulators would inevitably discover the devices and scrutinize their use, with Gottweis writing that "[n]o plausible explanation for the dramatically increased NOx emissions can be given to authorities." Winterkorn took that memo home to read as part of his "weekend suitcase." Winterkorn received another memo discussing Volkswagen's emissions cheating in November 2014 and, in July 2015, Winterkorn and Defendant Diess were present at a meeting where employees discussed Volkswagen's emissions cheating.

391. Moreover, as detailed above, Winterkorn's closest confidents at VW AG—Hatz and Hackenberg—were instrumental in the development and introduction of the defeat devices at the center of this case. Given Winterkorn's detail-oriented nature, his knowledge of everything his two closest lieutenants were doing reasonably implies knowledge from the outset of the Class Period.

- 392. Rather than investigating, reporting, or taking action to halt the emissions cheating, however, Volkswagen's management was far more interested in continuing to sell the illegally equipped cars, maintaining secrecy, and managing public-relations fallout. Internal communications at the Company reportedly show engineers and management weighing the risks and benefits of Volkswagen's fraud, including how to placate US regulators, and deciding not to prioritize addressing the Company's emissions cheating out of a mistaken and unreasonable belief that Volkswagen's financial exposure would be at most €20 million—and could possibly even slip through the cracks entirely.
- 393. **Third**, even as Volkswagen's cheating came to light, including once the ICCT and WVU study had been published in May 2014 and regulators including the EPA and CARB

 informed Volkswagen that they had discovered abnormalities in Volkswagen's emissions-testing results, Defendants continued to falsely blame faulty testing procedures in an attempt to hide their misconduct. In December 2014, Volkswagen agreed to recall approximately 500,000 vehicles whose actual emissions deviated significantly from test results, stating that it did so to implement a proposed "recalibration fix" to its engine software. But Volkswagen did not disclose that its vehicles contained defeat-device software or that they produced emissions in excess of legal limits, instead telling consumers that "engine management software has been improved," "to assure your vehicle's tailpipe emissions are optimized and operating efficiently." The recall was authorized by or known to the most senior executives at VW AG, VWGoA, VWoA, and AoA, including Defendants Winterkorn and Horn.

394. The EPA's September 18, 2015 NOV to Volkswagen concerning observed discrepancies between emissions levels in tests and on the road also shows that Volkswagen falsely denied to EPA that there was any problem at all. The EPA explained how Volkswagen falsely "continued to assert to CARB and the EPA that the increased emissions from these vehicles could be attributed to various technical issues and unexpected in-use conditions."

395. **Fourth**, reports indicate that even once the fact of Volkswagen's use of illegal defeat devices emerged, top executives directed Volkswagen's employees to destroy evidence in order to hide and minimize Volkswagen's culpability and exposure. A high-level official in Volkswagen's legal department, "Christoph R.," is reported to have directed colleagues in August 2015 to delete "incriminating material" concerning the diesel scandal, days before sending employees a "litigation hold" to preserve relevant documents. In other words, the Volkswagen executive responsible for ensuring the preservation of evidence was, at the same time, personally directing the destruction of that evidence. VW AG has admitted these facts and pleaded guilty to obstruction of justice based on the deliberate destruction of evidence. (SOF ¶¶73-81.)

396. **Fifth**, the US-based Volkswagen entities—VWGoA, VWoA, and AoA, as well as VWGoA and VWoA executive Horn—acted with scienter because they were centrally involved in the process for acquiring all necessary approvals and certifications so that their vehicles could

legally be sold and driven in the United States. As part of the regulatory process, those entities regularly and frequently interacted with regulators, and were responsible for understanding and complying with emissions limits and regulations. The entities were responsible for submitting numerous applications and made detailed representations to regulators and the public confirming the vehicles' compliance with governing regulations, evidencing a high degree of knowledge of the vehicles' emissions and compliance. VWGoA, VWoA, AoA, and Horn either knew or were reckless in not knowing that the purportedly "clean diesel" vehicles that were subject to these regulatory processes were equipped with defeat devices and in reality emitted NOx emissions far in excess of allowable limits. As alleged above, the Liang Plea Agreement and the Second Superseding Indictment demonstrate that VWGoA executives knowingly deceived the EPA and CARB about the defeat devices.

397. **Sixth**, Volkswagen's culture, including Defendant Winterkorn's hands-on micromanagement, supports a strong inference that Winterkorn and other top executives were aware that Volkswagen implemented a sophisticated emissions-cheating scheme for over a decade, as the Company has admitted that the current diesel scandal has its roots in the Company's "strategic decision to launch a large-scale promotion of diesel vehicles in the United States in 2005." In the ensuing years, it was widely known at Volkswagen that engineers were unable to successfully design a high-performance and low-emissions "clean diesel" engine.

398. Among other things, when Winterkorn took over as VW AG's CEO and brought along his top lieutenants Hatz and Hackenberg, beginning in late 2006, the Company committed to aggressively expand its diesel sales in the United States but also abandoned Volkswagen's use of the effective SCR system in favor of cheaper, less effective NOx traps. Winterkorn, Hatz, and Hackenberg—all demanding, detail-oriented engineers—were hostile to environmental regulations and had long opposed any measures that reduced emissions but had any negative impact on driving performance. By all accounts, Winterkorn was imperious and focused on engineering details, going so far as to attend auto shows with a tape measure and a magnet to precisely examine vehicles.

Volkswagen through a "reign of terror" and "culture of fear" that served as a "breeding ground for scandal" and "an accident waiting to happen" that made "shortcuts and cheating more likely" while making "arrogant bosses feel invincible in the face of competition and regulation." Further, the Chairman of VW AG's Supervisory Board has admitted that the diesel scandal arose from "a tolerance for breaking the rules" at the Company. Automotive-industry expert Dudenhoeffer has explained how Winterkorn "had his hands in everything," leading to a lack of any effective internal controls at the Company that allowed for the intentional violation of laws and regulations. Winterkorn and his team demanded the impossible—that engineers design a diesel engine that met emissions standards, did not sacrifice performance, and did not use SCR—and were well aware that goal could not be met legitimately and honestly. The fact that the emissions cheating was an open secret at Volkswagen is further shown by the use of code words such as "acoustic mode" and "acoustic function" to discuss the defeat-device software.

400. Indeed, Volkswagen's top managers directed the Company's fraudulent misconduct. Reports indicate that the idea for the defeat devices was originally developed under Winterkorn's leadership at Audi in 1999 and that, by the time years later when Volkswagen implemented the defeat devices, Hackenberg himself was one of the executives known to order the emissions cheating. And Hatz stressed how important it was for Volkswagen to "keep the pleasure" so that its cars were "fun to drive," while also admitting that it was "nearly impossible" for Volkswagen's diesel engines to meet CARB's emissions standards. As *Bild* has reported, when Volkswagen first installed defeat-device software in 2008, "there was no way . . . to reconcile meeting emission standards within the targeted cost of the engine. . . . Otherwise, the company would have to abandon the introduction of the engine, development of which was begun in 2005."

401. Further, a top Volkswagen technician gave a PowerPoint presentation in 2006 laying out, in detail, ways that Volkswagen could cheat on US emissions testing. The PowerPoint made clear that Volkswagen insiders knew that its diesel engines exceeded emissions standards, but executives repeatedly rejected proposals to lower emissions levels, and the entire Volkswagen

Management Board—led by Defendant Winterkorn—repeatedly refused technical proposals to upgrade emissions controls.

- 402. **Seventh**, Defendants' scienter is evidenced by the numerous iterations of defeat-device software that Volkswagen employed in its purportedly "clean diesel" vehicles over the years. The Company altered the illegal software to use with four different engine types, including intentionally and actively updating the software numerous times so that vehicles could pass emissions testing while keeping true, on-road emissions levels hidden. It is simply not plausible that a rogue group of low-level employees could or would have developed and kept secret a sophisticated, years-long plan to continually update the defeat-device software.
- 403. **Eighth**, the delay in rolling out the purportedly "clean diesel" Jetta in the United States in 2008 evidences Defendants' scienter. After announcing a spring-2008 rollout of the Jetta TDI, Volkswagen was forced to push back the rollout until summer 2008 due to the Company's inability to develop a high-performance diesel engine that met emissions standards. That decision garnered significant industry scrutiny, and was a significant blow to Volkswagen's acknowledged aspirations to use "clean diesel" vehicles as the primary driver of US market growth.
- 404. **Ninth**, there is a compelling inference of scienter because growth through "clean diesel" sales was a central focus for Volkswagen throughout the Class Period. As discussed above, VW AG saw expanding diesel sales—particularly in the United States—as a critical driver of market and earnings growth that would enable Volkswagen to become the world's largest automaker. In turn, the US-based entities—VWGoA, VWoA, and AoA—were pushed to expand diesel sales and implemented aggressive, large-scale campaigns to sell purportedly "clean diesel" vehicles and take over an increasing portion of the US environmentally friendly car market. That focus manifested itself in television and print advertising, as well as in numerous statements to investors throughout the Class Period.
- 405. **Tenth**, Defendants' scienter is supported by the fact that Volkswagen's vehicles produced CO2 emissions in excess of legal limits for years, with Winterkorn's awareness and approval, yet the Company took no corrective measures. In November 2013, the Company's

 Quality Assurance Department warned Winterkorn that many Volkswagen models met CO2 requirements only under the "best possible test conditions," rather than in real-life, on-road conditions. Winterkorn ignored that warning despite internal reports in July and November 2014 stating that CO2 output in Volkswagen's vehicles was "no longer manageable." Volkswagen not only ignored its cars' CO2-emissions noncompliance, but failed to take any steps in light of the CO2 noncompliance to investigate or ensure the Company's compliance with governing NOx emissions regulations

- 406. **Eleventh**, the sudden resignations, firings, and suspensions of top executives, including Winterkorn, Horn, Hatz, Hackenberg, Neuβer, Vahland, Dorenkamp, Rudolph, Doerfler, Tuch, and Jelden, who are either known to have been directly involved in the use and consequences of defeat devices, or who were likely to have been involved based on their positions, roles, and tenure, provide strong evidence of Defendants' scienter. Each of those individuals resigned, was fired, or was suspended, as news of Volkswagen's emissions cheating came to light and shortly after Volkswagen commenced its internal investigation.
- 407. **Twelfth**, the numerous investigations and legal actions concerning Volkswagen's diesel cheating scandal evidence scienter. The Company's internal investigation is ongoing, as are investigations and prosecutions by the EPA and CARB, as well as the DoJ, the Federal Trade Commission, the US House Energy Committee, the Attorneys General of all 50 states and the District of Columbia, the British Parliament, and the German, French, and Italian governments—along with Volkswagen consumers and dealers. Volkswagen is attempting to finalize the details of the resolution of certain claims of the US government and consumers, including committing billions of dollars to buy back affected vehicles, repair vehicles if possible, and pay into funds for environmental remediation.
- 408. **Thirteenth,** VW AG, VWGoA, VWoA, and AoA each acted with scienter because the scienter of top executives Winterkorn, Diess, and Horn is imputed to the companies that those individuals spoke on behalf of and controlled. Winterkorn was VW AG's CEO during the Class Period and Chairman of the VW AG Management Board, and Diess was and is a member of the

VW AG Management Board. Horn was the President and CEO of VWGoA, as well as president for the VWoA brand. Winterkorn and Diess spoke on behalf of VW AG and controlled VWGoA, VWoA, and AoA, and Horn spoke on behalf of and controlled VWGoA and VWoA. Each of Winterkorn, Diess, and Horn made, caused to be made, or certified materially false statements and omissions that misled investors with regard to the companies' financial results, compliance with governing emissions standards, and use of illegal defeat devices, as detailed in this Complaint.

## X. MATERIALLY FALSE AND MISLEADING STATEMENTS AND OMISSIONS

409. Winterkorn, Diess, VW AG, VWGoA, VWoA, and AoA all made numerous false and misleading statements and omitted material facts concerning VW AG's financial results and VW and Audi cars' NOx emissions levels, emissions-control technology, and compliance with US and European regulatory standards. These false and misleading statements and omissions were made in documents and broadcasts including Defendants' periodic financial reports, press releases, press kits, marketing brochures, vehicle labels, websites, and television advertisements.

#### A. VW AG, Winterkorn, and Diess Made False Statements and Omissions About VW AG's Accounting and Its Financial Results and Condition

- 410. As discussed above at ¶409, VW AG, Winterkorn, and Diess falsely stated in VW AG's periodic reports during the Class Period that its financial statements complied with IFRS and IAS, when in fact they did not because they failed to properly recognize provisions related to the emissions-cheating scheme or, in the alternative, to disclose contingent liabilities related to that scheme.
- 411. As also discussed above at ¶301, VW AG's liabilities to purchasers and lessees of its "clean diesel" cars for damages and repairs, its liabilities to US and foreign governmental agencies for fines and penalties resulting from its emissions-cheating scheme, and its obligation to repurchase leased cars at contractual resale values vastly exceeding their actual, impaired values constituted present obligations that were reliably estimable and were likely to result in an outflow of resources to settle the obligations, and should therefore have been recognized as a provision

under IAS 37 in each of its financial statements issued during the Class Period with respect to the defective diesel vehicles sold or leased during the relevant financial reporting period. As a liability, the provision would have reduced VW AG's operating profit during the period for which it should have been recognized and would have increased the Company's total liabilities and reduced the Company's net assets and shareholders' equity as of the balance-sheet date at the end of the period.

- 412. VW AG's liabilities accrued to date as a result of the defeat device fraud amount to at least \$18 billion, before giving effect to liabilities arising from all fines, damage awards, criminal penalties, and other costs that the Company has not yet accrued.
- 413. As a result of VW AG's failure to properly recognize provisions relating to its use of unlawful defeat devices in its "clean diesel" vehicles, its total liabilities were materially understated and its operating profit, total assets, and shareholders' equity were materially overstated in each of VW AG's following periodic reports during the Class Period. Winterkorn signed each of the Annual Reports. Each of the Interim Reports was signed by the Board of Management of VW AG. Winterkorn was a member of the Board of Management at the time of each of those reports except for the Third Quarter 2015 Report, and Diess was a member of the Board of Management when the Second and Third Quarter 2015 Interim Reports were issued. All amounts in the table below are in euros in millions:

VW AG Report	Reported Total Liabilities <sup>15</sup>	Reported Total Assets	Reported Shareholders' Equity	Reported Operating Profit
2010 Annual Report, issued on February 25, 2011	150,681	199,393	45,978	7,141
First Quarter 2011 Interim Report, issued on April 27, 2011	161,056	213,255	49,364	2,912
Second Quarter 2011 Interim Report, issued on July 28, 2011	162,496	218,175	53,018	3,174

<sup>&</sup>lt;sup>15</sup> The sum of reported current and noncurrent liabilities.

VW AG Report	Reported Total Liabilities <sup>15</sup>	Reported Total Assets	Reported Shareholders' Equity	Reported Operating Profit
Third Quarter 2011 Interim			-	
Report, issued on October 27, 2011	168,584	228,818	57,507	2,891
2011 Annual Report, issued on February 15, 2012	190,272	252,626	57,539	11,271
First Quarter 2012 Interim Report, issued on April 26, 2012	199,352	264,919	60,738	3,209
Second Quarter 2012 Interim Report, issued on July 26, 2012	208,428	274,958	62,292	3,283
Third Quarter 2012 Interim Report, issued on October 24, 2012	230,582	308,937	74,086	2,343
2012 Annual Report, issued on February 22, 2013	227,523	309,644	77,515	11,510
First Quarter 2013 Interim Report, issued on April 29, 2013	237,459	321,771	80,011	2,344
Second Quarter 2013 Interim Report, issued on July 31, 2013	235,499	319,092	81,386	3,437
Third Quarter 2013 Interim Report, issued on October 30, 2013	235,503	323,398	83,628	2,777
2013 Annual Report, issued on February 21, 2014	234,296	324,333	87,733	11,671
First Quarter 2014 Interim Report, issued on April 29, 2014	246,568	333,909	80,031	2,855
Second Quarter 2014 Interim Report, issued on July 31, 2014	246,410	336,124	89,524	3,330
Third Quarter 2014 Interim Report, issued on October 30, 2014	256,305	347,308	85,806	3,230
2014 Annual Report, issued on February 17, 2015	261,020	351,209	89,991	12,697
First Quarter 2015 Interim Report, issued on April 29, 2015	286,560	375.827	81,610	3,328

VW AG Report	Reported Total Liabilities <sup>15</sup>	Reported Total Assets	Reported Shareholders' Equity	Reported Operating Profit
Second Quarter 2015 Interim Report, issued on July 29, 2015	277,857	374,910	88,442	3,492
Third Quarter 2015 Interim Report, issued on October 28, 2015	277,799	371,411	85,901	(3,479)

414. In the alternative, VW AG, Winterkorn, and Diess should have disclosed the existence of a contingent liability related to the emissions-cheating scheme, as well as an estimate of its financial effect, an indication of the uncertainties relating to the amount or timing of any outflow, and the lack of any possibility of reimbursement, in each of VW AG's periodic reports issued during the Class Period.

- B. Defendants Made False Statements and Omissions About VW Vehicles' Emissions-Reduction Technology and Compliance with US and European Emissions Regulations
- 415. In addition to the false and misleading financial information discussed above, Defendants made numerous false statements about their vehicles' emissions-control technology and compliance with applicable US and European emissions standards.
  - 1. Defendants Made Pre-Class Period False Statements and Omissions That Artificially Inflated the Prices of VW AG Securities and Remained Uncorrected Throughout the Class Period
- 416. Before the start of the Class Period, Defendants made a number of materially false and misleading statements in press releases and marketing brochures about their vehicles' emissions-control technology and compliance with applicable US and European emissions standards. These false statements artificially inflated the prices of VW AG securities and remained uncorrected at the outset of the Class Period and throughout the Class Period. In addition to the false and misleading statements in websites, brochures, interviews, and television and print

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advertisements quoted in ¶178-92 above, Defendants made the following pre-Class Period false and misleading statements.

#### a) Defendants Made False Statements and Omissions in Pre-Class Period Press Releases

417. A January 4, 2009 press release by VWoA/VWGoA entitled "Volkswagen's 2.0L Turbo Clean Diesel Engine Recognized as 2009 Ward's 10 Best Engine" stated:

"We're pleased that Ward's has recognized our advanced 2.0-liter clean diesel engine as one of their 2009 10 Best Engines," said Stefan Jacoby, CEO, Volkswagen Group of America. "The all-new 2.0L turbodiesel engine is not only the first of its kind to be emissions-compliant in all 50 states, but perhaps the most technically refined powerplant of its kind in the world."

As the pioneering entry in the new era of clean diesel in North America, the new TDI engine technology in the Jetta sedan and SportWagen meets the United States most stringent emissions control standard -- California's Tier II/Bin 5 -- without the use of urea injection.

\* \* \*

In response to the U.S. federal mandate for Ultra Low Sulfur Diesel (ULSD), Volkswagen has been able to greatly reduce nitrous oxide (NOx) and particulate emissions on its clean diesel TDI engines through use of three key technologies: a common rail direct injection system; piezo fuel injectors; and an advanced exhaust system after-treatment system. The result is a reduction of NOx and particulate emissions by up to 90-percent; exceptional noise and vibration harshness performance; and fuel efficiency on par with more complex and expensive gas/electric hybrid systems.

418. A June 11, 2009 AoA press release entitled "Audi Covers the 24 Hours of Le Mans Race Stateside on Social Media Websites" stated:

Audi TDI technology marks its 20th anniversary year by offering U.S. consumers the world's cleanest diesel system in the 2009 Audi Q7 TDI. This ground breaking vehicle, on sale now, combines efficiency and performance with styling and luxurious appointments to open up the discussion over America's alternative fuels options. Audi TDI is a technology certified to meet emissions regulations in all 50 U.S. states. That includes the California ULEV II (Ultra-Low Emissions Vehicle) standards that also apply to conventional gasoline vehicles and represent one of the world's most rigorous motor vehicle emission requirements. Audi will further showcase the fuel-economy and emissions benefits of clean diesel later this year with the introduction of the Audi A3 TDI.

419. A February 1, 2010 VWoA/VWGoA press release entitled "Volkswagen's 2.0L TDI Clean Diesel Engine Named a 'Ward's 10 Best Engine' for 2010" stated:

The 2.0L TDI is compliant with the stringent Tier 2, Bin 5/ULEV II emissions standards that apply in California and all 50 U.S. states, and is available now in the all-new sixth generation Golf, the award-winning Jetta, and the versatile Jetta SportWagen models.

\* \* \*

Greenhouse gas emissions are cut 25 percent over a comparable gasoline engine, along with a 95 percent reduction of nitrogen oxide emissions since 1990, making for a cleaner ride with every mile.

420. The statements quoted in ¶¶417-19 were materially false and misleading because the vehicles in question actually did not comply with the cited regulatory standards for emissions; the vehicles (as demonstrated by the ICCT/WVU testing and as acknowledged by US, State, and European regulators) actually emitted NOx at levels far higher than permitted by the regulatory standards; the emissions-control technologies described in the statements did not reduce NOx and greenhouse gas emissions as much as Defendants said they did; and the vehicles only purported to achieve the low emissions represented by Defendants and to comply with the regulatory standards because the vehicles were secretly equipped with illegal defeat devices.

#### b) Defendants Made False Statements and Omissions in Pre-Class Period Marketing Brochures

- 421. VWoA/VWGoA's model-year 2010 Beetle, Touareg, and Passat marketing brochures, which are believed to have been published by VWoA/VWGoA in 2009 and to have continued to be publicly distributed by VWoA/VWGoA during and throughout the Class Period, all asked: "Did you know... that we were the first to make clean diesel available in all 50 states?" The 2010 Touareg marketing brochure added that "[t]he TDI engine is cleaner than conventional diesels, emitting as much as 95% less soot as well as a reduction in oxides of nitrogen and sulfur."
- 422. VWoA/VWGoA's model-year 2010 Golf marketing brochure, which is believed to have been published by VWoA/VWGoA in 2009 and to have continued to be publicly distributed

by VWoA/VWGoA during and throughout the Class Period, asked: "Did you know... that we were the first to make clean diesel available in all 50 states? . . . The all-new 2010 Golf Clean Diesel . . . [is] efficient, using a turbocharger and smart exhaust design to use fuel more effectively. So much so, in fact, that Volkswagen was the first automaker to make clean diesel cars that are certified in all 50 states."

423. VWoA/VWGoA's model-year 2010 Jetta marketing brochure, which is believed to have been published by VWoA/VWGoA in 2009 and to have continued to be publicly distributed by VWoA/VWGoA during and throughout the Class Period, stated:

Did you know that a Volkswagen was named the 2009 World Car of the Year?\* Or that Volkswagen has ESP® standard on all 2010 vehicles? Or that we provide a Carefree Maintenance<sup>TM</sup> Program\*\* on all our 2010 cars? **Or that we were the first to make clean diesel available in all 50 states?** 

\* \* \*

The Volkswagen TDI engine is cleaner than conventional diesels, emitting as much as 95% less soot than previous diesel engines, as well as a reduction in oxides of nitrogen and sulfur. It's powerful, with the kind of low-end torque that racers and tuners demand. It's efficient, using a turbocharger and smart exhaust design to burn fuel more effectively. So much so, in fact, that Volkswagen was the first automaker to make clean diesel cars certified in all 50 states.

- 424. AoA's model-year 2010 Audi A3 marketing brochure, which is believed to have been published by AoA in 2009 and to have continued to be publicly distributed by AoA during and throughout the Class Period, stated that the Audi A3 had "the cleanest diesel technology in the world" and that "TDI® emissions are reduced to ultra-low levels thanks to a revolutionary emissions system. The result is a car that is clean, quiet, powerful and proven."
- 425. AoA's model-year 2010 Audi Q7 marketing brochure, which is believed to have been published by AoA in 2009 and to have continued to be publicly distributed by AoA during and throughout the Class Period, stated:

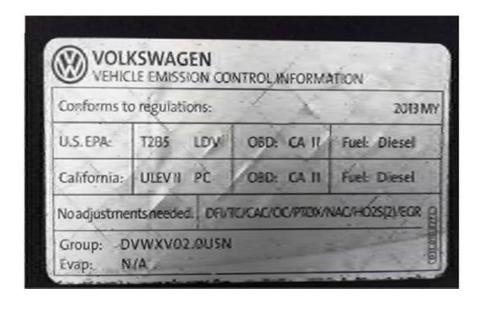
In the Q7 TDI®, all of the power and performance come with a respect for the environment Audi considers essential. On top of the ultra-low emissions a TDI® vehicle produces, the revolutionary clean diesel emissions system scrubs the exhaust, producing lower levels of NOX than gasoline-powered vehicles. It's

so clean, it already complies with the stringent emissions standards coming to Europe in 2014. Clean, powerful and efficient – only in the Audi Q7 TDI®.

426. The statements quoted in ¶421-25 were materially false and misleading because the vehicles in question actually did not comply with the cited regulatory standards for emissions; the vehicles (as demonstrated by the ICCT/WVU testing and as acknowledged by US, State, and European regulators) actually emitted NOx at levels far higher than permitted by the regulatory standards; the emissions-control technologies described in the statements did not reduce NOx emissions as much as Defendants said they did; and the vehicles only purported to achieve the low emissions represented by Defendants and to comply with the regulatory standards because the vehicles were secretly equipped with illegal defeat devices.

# 2. Defendants Made False Statements and Omissions About Emissions-Control Technology and Compliance During the Class Period

- 427. During the Class Period, Defendants continued to make materially false and misleading statements about their vehicles' emissions-control technology and compliance with applicable US and European emissions standards.
- 428. Every "Clean Diesel" vehicle sold by Defendants in the United States during the Class Period bore a sticker falsely representing that the vehicle complied with US EPA and CARB emissions standards, substantially in the form below:



429. The stickers quoted in ¶428 were materially false and misleading because the vehicles bearing the stickers actually did not comply with the cited regulatory standards for emissions. Actually (as demonstrated by the ICCT/WVU testing and as acknowledged by US, State, and European regulators) the vehicles emitted NOx at levels far higher than permitted by the regulatory standards, and only purported to comply with standards because the vehicles were secretly equipped with illegal defeat devices.

430. Defendants also made false statements about VW vehicles' emissions-control technology and compliance with applicable US and European emissions standards in VW AG's periodic reports and in press releases, press kits, and marketing brochures.

## a) Defendants Made False Statements in VW AG's Periodic Reports

431. VW AG's periodic reports during the Class Period, all of which were signed by Winterkorn (and, in the case of the Second Quarter 2015 Interim Report, also by Diess) except for the Third Quarter 2015 Annual Report, which was signed by the Management Board of VW AG, including Diess, included the following false and misleading statements.

432. VW AG's 2010 Annual Report, issued on February 25, 2011, quoted Winterkorn as saying that "Our pursuit of innovation and perfection and our responsible approach will help to make us the world's leading automaker by 2018—both economically and ecologically" and that "Our aim is to make the Volkswagen Group the leading automaker by 2018—economically and ecologically."

433. The 2010 Annual Report also stated:

The key element of our "Strategy 2018" is to position the Volkswagen Group as a global economic and environmental leader among automobile manufacturers.

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We are paying particular attention to our environmentally friendly orientation and the profitability of our vehicle projects. This also ensures that the Company can be successful with the right products, even in an economically difficult environment, and that capital expenditure remains at manageable levels. With our attractive and environmentally friendly range of vehicles, which we are steadily and rationally expanding, and the excellent position of the separate brands in the markets worldwide, we are able to leverage the Group's strengths and to systematically increase our competitive advantage. Our activities are oriented on setting new ecological standards in the areas of vehicles, powertrains and lightweight construction.

434. The 2010 Annual Report also stated:

In order to master the challenges of the automotive future and reach the "Strategy 2018" targets, **the decisive advantages for the Volkswagen Group lie in its** unique brand portfolio, the young, innovative and **environmentally friendly model range**, the broad international presence with local value added in many key regions, the significant synergy potential in the Group-wide development of technologies and models, and finally in its financial strength.

\*\*\*\*

Thanks to our expertise in technology and design, we have a diverse, attractive and environmentally friendly range of products that meets all customer desires and needs.

435. The 2010 Annual Report also stated: "Thanks to our attractive and environmentally friendly model range, we significantly increased the Group's market share in important key markets; our global market share also recorded encouraging growth."

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436. VW AG's First Quarter 2011 Interim Report, dated April 27, 2011, stated that "Thanks to our expertise in technology and design, we have a diverse, attractive and environmentally friendly range of products that meets all customer desires and needs."

- 437. VW AG's Second Quarter 2011 Interim Report, dated July 28, 2011, and Third Quarter 2011 Interim Report, dated October 27, 2011, repeated the statement quoted in the immediately preceding paragraph.
  - 438. VW AG's Third Quarter 2011 Interim Report also stated:

In September 2011, the Supervisory Board of Volkswagen AG gave the green light for the largest investment package in the Group's history. With this approval, the Company will invest approximately €62.4 billion in the Automotive Division over the next five years, thus putting in place key preconditions for becoming the economic and environmental leader in the automotive sector. The bulk of the investments will be made in environmentally friendly, sustainable models and technologies . . . .

- 439. VW AG's 2011 Annual Report, dated February 15, 2011, quoted Winterkorn as saying that "Our pursuit of innovation and perfection and our responsible approach will help to make us the world's leading automaker by 2018—both economically and ecologically" and that "Our number one priority is our customers, no question. And our job is to build the best, safest and most environmentally friendly cars for them."
- 440. The 2011 Annual Report also included a letter from Winterkorn in which he emphasized the importance of making "environmentally friendly" vehicles:

At Volkswagen, what really matters to us mostly that we can satisfy our customers and employees all over the world; that we can drive forward all the technologies needed to make our vehicles even safer and more environmentally friendly; that we can conserve resources and use renewable energy in our plants; and, not least, that we can continue our broad commitment to education, culture and a responsible society.

Responsibility for the environment for our employees and for society is a core component of our Strategy 2018. Because we are convinced that this is the only way that Volkswagen can grow sustainability and profitably. And because this is an integral part of becoming the leading automobile manufacturer—in every respect.

441. The 2011 Annual Report also stated:

We are focusing in particular on the environmentally friendly orientation and profitability of our vehicle projects so that the Volkswagen Group has the right products for success even in more challenging economic conditions. At the same time, this will mean that capital expenditure remains at manageable levels. Our attractive and environmentally friendly range of vehicles, which we are steadily and judiciously expanding, and the excellent position enjoyed by our individual brands in the markets worldwide, are key factors allowing us to leverage the Group's strengths and to systematically increase our competitive advantages. Our activities are primarily oriented on setting new ecological standards in the areas of vehicles, powertrains and lightweight construction.

- 442. The 2011 Annual Report also stated that "Thanks to our expertise in technology and design, we have a diverse, attractive and environmentally friendly portfolio of products that meets all customer desires and needs."
- 443. VW AG's First Quarter 2012 Interim Report, dated April 26, 2012, stated that "Thanks to our expertise in technology and design, we have a diverse, attractive and environmentally friendly portfolio of products that meets all customer desires and needs."
- 444. VW AG's Second Quarter 2012 Interim Report, dated July 26, 2012, and Third Quarter 2012 Interim Report, dated October 24, 2012, repeated the statement quoted in the immediately preceding paragraph.
- 445. VW AG's 2012 Annual Report, dated February 22, 2013, quoted Winterkorn as saying that "Our pursuit of innovation and perfection and our responsible approach will help to make us the world's leading automaker by 2018—both economically and ecologically"; that "We are systematically focusing our vehicles and our plants on being environmentally friendly and efficient"; and that "our goal is to ensure the Volkswagen Group reaches the top of the automotive industry by 2018—in both economic and ecological terms. We are focusing all our efforts and energy on achieving this goal."
- 446. The 2012 Annual Report also stated that "The [VW] Group continued to extend its strong competitive position in the reporting period thanks to its wide range of attractive and environmentally friendly models."

447. The 2012 Annual Report also stated that "By 2018, we also intend to be the number one in the automotive industry in ecological terms. To reach this goal, . . . we intend to make our products more environmentally friendly."

448. The 2012 Annual Report also stated:

We are focusing in particular on the environmentally friendly orientation and profitability of our vehicle projects so that the Volkswagen Group has the right products for success even in more challenging economic conditions. . . . Our attractive and environmentally friendly range of vehicles, which we are steadily and judiciously expanding, and the excellent position enjoyed by our individual brands in the markets worldwide, are key factors allowing us to leverage the Group's strengths and to systematically increase our competitive advantages.

449. The 2012 Annual Report also stated:

The decisive advantages that the Volkswagen Group can exploit to master the challenges of the automotive future and to achieve its Strategy 2018 targets are its unique brand portfolio, its young, innovative and environmentally friendly model range, its broad international presence with local value added in many key regions, the significant synergy potential offered by the Group-wide development of technologies and models, and finally its financial strength.

- 450. The 2012 Annual Report also stated that "We offer an extensive range of environmentally friendly, cutting-edge, high-quality vehicles for all markets and customer groups that is unparalleled in the industry."
- 451. The 2012 Annual Report also stated that the Company's "positive performance is due above all to our attractive and environmentally friendly model portfolio, which impresses customers around the globe."
- 452. VW AG's First Quarter 2013 Interim Report, dated April 29, 2013, stated that "Our expertise is unparalleled in the industry and we offer an extensive range of environmentally friendly, cutting-edge, high-quality vehicles for all regions and customer groups."
- 453. VW AG's Second Quarter 2013 Interim Report, dated July 31, 2013, and Third Quarter 2013 Interim Report, dated October 30, 2013, repeated the statement quoted in the immediately preceding paragraph.

454. The Third Quarter 2013 Interim Report also stated that "Chairman of the Board of Management Prof. Dr. Martin Winterkorn stressed that the Group enjoys a strong position thanks to its range of highly efficient and environmentally friendly diesel, petrol and natural gas engines . . . ."

455. VW AG's 2013 Annual Report, dated February 21, 2014, quoted Winterkorn as saying that "Our pursuit of innovation and perfection and our responsible approach will help to make us the world's leading automaker by 2018—both economically and ecologically"; that "our goal is to become better and better, more efficient, more environmentally friendly and even more customer-centric — from development through production down to sales"; and that "our goal is to ensure the Volkswagen Group reaches the top of the automotive industry by 2018—in both economic and ecological terms. We are focusing all our efforts and energy on achieving this goal."

456. The 2013 Annual Report also stated:

We are focusing in particular on the environmentally friendly orientation and profitability of our vehicle projects so that the Volkswagen Group has the right products for success even in more challenging economic conditions. . . . Our attractive and environmentally friendly range of vehicles, which we are selectively expanding, and the strong position enjoyed by our individual brands in the markets worldwide, are key factors allowing us to leverage the Group's strengths and to systematically increase our competitive advantages.

- 457. The 2013 Annual Report also stated that "Volkswagen is . . . continuing to focus in depth on developing efficient drive technologies, thus extending its position as an innovation leader in the area of environmentally friendly mobility," and that "We offer an extensive range of environmentally friendly, cutting-edge, high-quality vehicles for all markets and customer groups that is unparalleled in the industry."
- 458. VW AG's First Quarter 2014 Interim Report, dated April 29, 2014, stated that "We offer an extensive range of environmentally friendly, cutting-edge, high-quality vehicles for all markets and customer groups that is unparalleled in the industry."

VW AG's Second Quarter 2014 Interim Report, dated July 31, 2014, and Third Quarter 2014 Interim Report, dated October 30, 2014, repeated the statement quoted in the immediately preceding paragraph.

VW AG's 2014 Annual Report, dated February 17, 2015, quoted Winterkorn as saying that "Our pursuit of innovation and perfection and our responsible approach will help to make us the world's leading automaker by 2018—both economically and ecologically."

461. The 2014 Annual Report also stated:

The Volkswagen Group aims to increase its unit sales and profitability for the long term. This is why its Strategy 2018 —with which Volkswagen intends to become the global economic and environmental leader among automobile manufacturers by 2018 — has been anchored in the Company.

We are focusing in particular on the environmentally friendly orientation and profitability of our vehicle projects so that the Volkswagen Group has the right products for success even in more challenging economic conditions. . . . Our attractive and environmentally friendly range of vehicles, which we are selectively expanding, and the strong position enjoyed by our individual brands in the markets worldwide, are key factors allowing us to leverage the Group's strengths and to systematically increase our competitive advantages.

Our activities are primarily oriented on setting new ecological standards in the areas of vehicles, drivetrains and lightweight construction.

462. The 2014 Annual Report also stated:

Our attractive and environmentally friendly model portfolio impresses customers around the globe. The trust placed in us by customers, as well as our high quality and efficiency standards, allow us to meet and even exceed our financial targets.

The 2014 Annual Report also stated that "We offer an extensive array of 463. attractive, environmentally friendly, cutting-edge, high-quality vehicles for all markets and customer groups."

- 465. VW AG's Second Quarter 2015 Interim Report, dated July 29, 2015, repeated the statement quoted in the immediately preceding paragraph.
- 466. The statements quoted in ¶¶432-64 were materially false and misleading because far from being "environmentally friendly," VW AG's diesel vehicles were equipped with secret defeat devices that allowed them to be sold under the pretense that their NOx emissions were within the legal limits when they actually (as demonstrated by the ICCT/WVU testing and as acknowledged by US, State, and European regulators) exceeded such limits by as much as 40 times, and far from being an "environmental leader," VW AG was deliberately violating environmental regulations designed to protect human health and reduce the threat of global warming.
  - 467. VW AG's second-quarter 2011 Interim Report, dated July 28, 2011, stated:

The new 2.01 103 kW TDI engine has been modified specially for the Passat manufactured in Chattanooga, North America. Lower raw emissions and its SCR (selective catalytic reduction) emissions control system enable the powertrain to meet the strict requirements of the US BIN5/ULEV emissions laws. The new engine underlines Volkswagen's firm belief that diesel-powered vehicles also have strong potential in the USA.

468. The statement quoted in ¶467 was materially false and misleading because the vehicles in question actually did not comply with the cited regulatory standards for emissions; the vehicles (as demonstrated by the ICCT/WVU testing and as acknowledged by US, State, and European regulators) actually emitted NOx at levels far higher than permitted by the regulatory standards; the emissions-control technologies described in the statement did not reduce NOx emissions as much as Defendants said they did; and the vehicles only purported to achieve the low emissions misrepresented by Defendants and to comply with the regulatory standards because the vehicles were secretly equipped with illegal defeat devices.

materially false and misleading, but such statements in VW AG's periodic reports concerning,

among other things, the Company's vehicles' compliance with emissions standards, Defendants'

commitment to being environmentally friendly, and their use of technology and engineering

expertise to produce "clean diesel" vehicles triggered an obligation for Defendants to disclose in

each of VW AG's annual and interim reports issued during the Class Period the omitted facts

concerning, among other things, that the subject "clean diesel" vehicles could not have been legally

sold in the United States or Europe as they did not meet the applicable emissions standards and

utilized illegal defeat devices. As noted above, Volkswagen's periodic reports issued during the

**Defendants Made False Statements and** 

**Omissions in Press Releases and Press Kits** 

**AG's Periodic Reports** 

**Defendants Made Material Omissions in VW** 

Not only do the facts alleged herein make Defendants' statements identified above

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### 470. A January 7, 2011 AoA press release entitled "Inside the U.S. Audi Momentum Story" stated:

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Class Period were each signed by either Winterkorn or Diess, or both.

b)

When Audi introduced its first TDI® model in the U.S. in 2009, it was difficult to assess the American appetite for clean diesel vehicles. Unlike Europe, where diesel

is often the dominant engine choice, America harbored mixed memories of clattering diesels from the past.

Funny what a difference a year makes. With fuel economy gains of up to 40% and one-third reductions in green-house gas emissions, U.S. consumers found that TDI provides a compelling environmental choice without any performance sacrifices. In 2010, the innovative Audi TDI clean diesel technology made up 53% of all U.S. Audi A3 sales, and 43.5% of all Audi Q7 sales. TDI models made up a solid 47.8% of the sales for the two model lines combined—a key reason why Audi plans to at least double its TDI offerings in the U.S. market in the near future. The strong U.S. demand for TDI has also proven to be significantly higher than the 18-20% sales mix anticipated just a year earlier.

A January 9, 2011 VWoA/VWGoA press release entitled "Volkswagen Reveals the 471. All-New Passat—A First-In-Class Vehicle That Delivers Superior German Engineering and Is Built in America" stated:

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The new Passat, the largest ever, is the only midsize sedan that offers superior German engineering at an accessible price. The Passat TDI—the only clean diesel option in the segment—is expected to deliver 43 miles per gallon on the highway, with a range of approximately 800 miles.

The quiet, four cylinder 2.0L TDI Clean Diesel (140 hp/236 lb.-ft.) has the power of a six cylinder gasoline engine and the fuel economy of a hybrid. The Passat TDI is expected to deliver 43 miles per gallon on the highway, with a range of approximately 800 miles. Volkswagen's TDI clean diesel engines, which come with a NOx storage catalytic converter, are among the cleanest engines in the world, fulfilling emissions requirements in all 50 states.

472. An April 18, 2011 VW AG press release entitled "Initial Facts: The Beetle" stated:

US diesel with 140 PS. When it comes to engines, all signs point toward sustainability. In the USA, the Beetle will be offered as a turbodiesel for the first time. The Beetle 2.0 TDI (103 kW / 140 PS) meets all USA emission limits and attains 40\* mpg fuel economy in the Highway cycle, 29\* mpg in City driving, and 33\* mpg combined.

\* \* \*

Engine specifications: . . . all diesels are new common rail TDI engines; all engines meet Euro-5 emissions standard; all US engines fulfil BIN5 / ULEV PZEV.

473. An April 18, 2011 VWoA/VWGoA press release entitled "Volkswagen Debuts the Sportiest, Most Fuel-Efficient Beetle Ever; Automotive Icon Gets a Major 21st Century Update" stated:

The quiet, four cylinder 2.0L TDI Clean Diesel engine . . . meets all U.S. emission limits and offers manufacturer estimates of 40 mpg highway, 29 mpg city, and 33 mpg combined.

474. A May 6, 2011 VW AG press release entitled "32nd International Vienna Motor Symposium: Volkswagen steps up its use of plug-in hybrid technology" stated:

At the Vienna Motor Symposium Volkswagen also showcased two new engines which will be available shortly: the 1.4 l TSI Motor E 85 and the new 2.0l TDI, which already fulfils stringent BIN5/ULEV emission laws in the USA.

\* \* \*

Unlike the European automotive market, the share of passenger cars with diesel engines is still quite small in the USA. In recent years, just a few carmakers—notably Volkswagen and Audi—have been able to sell appreciable volumes of

vehicles with diesel engines. By introducing the new 2.0 l TDI, the Volkswagen Group is reaffirming its conviction that diesel engines still have great potential in passenger cars in the USA.

The 2nd generation 2.0 l TDI, familiar from Europe, was modified and further engineered for the new Passat to be produced in Chattanooga exclusively for the North American market. To satisfy BIN5/ULEV emission regulations in the USA, it was necessary to reduce the engine's raw emissions and install an SCR (selective catalytic reduction) emissions control system.

475. A July 11, 2011 VWoA/VWGoA press release entitled "To the point: The Beetle" stated:

In the USA, the most fuel-efficient engine is the 2.0 TDI, which attains a Highway fuel economy of 40 mpg and offers fun that is in harmony with the environment.

\* \* \*

Engine specifications: . . . Diesel: TDI (common rail engines). All EU engines fulfil Euro-5 emissions standard; all US engines fulfil BIN5 / ULEV PZE

476. In a September 13, 2011 VW AG press release entitled "Modern-day sustainability made by Volkswagen," Defendant Winterkorn was quoted as saying that "small emissions" were important for VW AG's sales:

Talking to some 2,000 guests from 43 countries, Martin Winterkorn said: "This evening showcases the diversity of our brands, our models and the optimum solutions for our customers. **People want to live and act responsibly and that holds equally true with respect to the key issue of mobility. That means:** Beautiful design with no gimmicky window dressing, total driving pleasure but low consumption, **big emotions but small emissions**. The Volkswagen Group offers all that with a diversity no other automaker can match.

477. VWoA/VWGoA's model-year 2012 Beetle press kit, which is believed to have been published by VWoA/VWGoA in 2011 and to have continued to be publicly distributed by VWoA/VWGoA throughout the Class Period, stated:

Clean Diesel Leadership: Volkswagen pioneered the use of turbocharging and direct injection in diesel engines and continues to lead the industry in this technology. This isn't the first Beetle to be sold in the U.S. market with a diesel engine. From 1998 until 2006, the New Beetle was fitted with a 1.9-liter turbocharged four-cylinder diesel engine.

Since then this engine has been heavily revised to accommodate increasing demand for improvements in exhaust emissions and acoustics. One of the most fundamental improvements was converting the fuel-injection system to a commonrail design, as well as increasing the capacity by 72 cc thanks to a 1.5-mm wider bore.

\* \* \*

The engine's turbocharger features adjustable guide vanes that maintain the best aspect ratio for low- and high-speed performance. In order to meet current tailpipe emissions standards in all 50 states, the engine makes use of both high- and low-pressure exhaust gas recirculation over all engine speeds, as well as an exhaust system that has a particulate filter.

- 478. VWoA/VWGoA's model-year 2012 Golf press kit, which is believed to have been published by VWoA/VWGoA in 2011 and to have continued to be publicly distributed by VWoA/VWGoA throughout the Class Period, stated that "[t]he 2012 Golf is offered with the choice of two technically-advanced engines. Buyers can choose either the 2.5-liter in-line five-cylinder gasoline engine, or the 50-state compliant 2.0L TDI Clean Diesel."
- 479. VWoA/VWGoA's model-year 2012 Passat press kit, dated August 23, 2011, stated that "[t]he TDI engine is equipped with a Selective Catalytic Reduction System (SCR), a clean engine that fulfills emissions requirements in all 50 states."
- 480. VWoA/VWGoA's model-year 2012 Touareg press kit, dated September 6, 2011, stated: "To achieve its 50-state-legal emissions qualification, a deNOx catalytic converter, augmented by a special injection system that sprays AdBlue into the exhaust, helps reduce NOx emissions by up to 90 per cent. This lets the engine meet the Tier 2, Bin 5/ULEV II standards imposed across all 50 U.S. states."
- 481. A May 7, 2012 VWoA/VWGoA press release entitled "Volkswagen Passat Sets World Record for Longest Distance on One Tank of Clean Diesel Fuel" and a September 19, 2012 VWoA/VWGoA press release entitled "It's Official: 2012, the Best Year Ever for the Volkswagen Passat" both stated:

The Passat's 2.0-liter TDI Clean Diesel inline four-cylinder engine produces 140 horsepower and 236 pound-feet of torque and with a manual transmission delivers an EPA estimated fuel economy rating of 43 mpg on the highway. **The TDI engine** 

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is equipped with a Selective Catalytic Reduction System (SCR) that fulfills emissions requirements in all 50 states.

- 482. VWoA/VWGoA's model-year 2013 Passat press kit, dated January 2, 2013, stated that "[t]he TDI engine is equipped with a Selective Catalytic Reduction System (SCR) that fulfills emissions requirements in all 50 states."
- 483. VWoA/VWGoA's model-year 2013 Touareg press kit, which is believed to have been published by VWoA/VWGoA in 2012, stated that "[t]o achieve its 50-state-legal emissions qualification, a deNOx catalytic converter, augmented by a special injection system that sprays AdBlue into the exhaust, helps reduce NOx emissions by up to 90 per cent. This lets the engine meet the Tier 2, Bin 5/ULEV II standards imposed across all 50 U.S. states."
- 484. A March 27, 2013 VWoA/VWGoA press release entitled "Seventh-Generation Volkswagen Golf Makes Its North American Debut At The New York International Auto Show" stated:

The Golf TDI Clean Diesel model will be powered by a new 2.0-liter common-rail, turbocharged, direct-injection diesel engine.

The TDI Clean Diesel model will use the new EA288 turbocharged, common-rail, direct-injection four-cylinder engine . . . . A number of changes have been made to help reduce emissions, such as: use of a complex exhaust gas recirculation system (with a cooled low-pressure AGR); integration of the intercooler with the intake manifold, which also improves throttle response; and packaging the exhaust after-treatment components close to the engine.

- 485. VWoA/VWGoA's model-year 2013 Beetle press kit, dated May 3, 2013, stated:
- Clean Diesel Leadership: Volkswagen pioneered the use of turbocharging and direct injection in diesel engines and continues to lead the industry in this technology. This isn't the first Beetle to be sold in the U.S. market with a diesel engine. From 1998 until 2006, the New Beetle was fitted with a 1.9-liter turbocharged four-cylinder diesel engine.
- Since then this engine has been heavily revised to accommodate increasing demand for improvements in exhaust emissions and acoustics. One of the most fundamental improvements was converting the fuel-injection system to a commonrail design, as well as increasing the capacity by 72 cc thanks to a 1.5-mm wider bore.

\* \* \*

The engine's turbocharger features adjustable guide vanes that maintain the best aspect ratio for low- and high-speed performance. In order to meet current tailpipe emissions standards in all 50 states, the engine makes use of both high- and low-pressure exhaust gas recirculation over all engine speeds, as well as an exhaust system that has a particulate filter and no fewer than three catalytic convertors: for oxidation, oxides of nitrogen (NOx), and hydrogen sulfide.

486. An August 6, 2013 VWoA/VWGoA press release entitled "Volkswagen Group of America Underlines Diesel Strategy with New Engine Line" stated:

Oliver Schmidt, General Manager, Energy and Environmental Office, Volkswagen Group of America . . . [said that] "The Volkswagen Group is a leader in clean diesel technology. . . . With the introduction of the new EA288 engine, we are excited that our family of TDI Clean Diesel vehicles is continuing to improve and will be even more clean, fuel efficient and powerful."

The new EA288 will eventually replace all the 2.0-liter TDI Clean Diesel engines fitted in Audi and Volkswagen TDI Clean Diesel models. The engine is a turbocharged, common-rail, direct-injection four-cylinder engine that makes 150 horsepower—an increase of 10 hp over the current engine—and 236 pound-feet of torque. This powerplant shares only the bore spacing with the previous diesel engine that shared the same designation. A number of changes have been made to help reduce emissions, such as: use of a complex exhaust gas recirculation system (with high pressure EGR and a cooled low-pressure EGR); integration of the water-cooled intercooler and the EGR valve with the intake manifold, which also improves throttle response; and packaging the exhaust after-treatment components close to the engine by combining the DPF with the SCR Catalyst.

487. An August 25, 2013 VWoA/VWGoA press release entitled "2014 Volkswagen Beetle: Improving the Icon" stated:

Clean Diesel Leadership: Volkswagen pioneered the use of turbocharging and direct injection in diesel engines and continues to lead the industry in this technology. This isn't the first Beetle to be sold in the U.S. market with a diesel engine. From 1998 until 2006, the New Beetle was fitted with a 1.9-liter turbocharged four-cylinder diesel engine.

Since then, this engine has been heavily revised to accommodate increasing demand for improvements in exhaust emissions and acoustics. One of the most fundamental improvements was converting the fuel-injection system to a commonrail design, as well as increasing the capacity by 72 cc thanks to a 1.5-mm wider bore.

\* \* \*

In order to meet current tailpipe emissions standards in all 50 states, the engine makes use of both high- and low-pressure exhaust gas recirculation over all engine speeds, as well as an exhaust system that has a particulate filter and no fewer than three catalytic convertors: for oxidation, oxides of nitrogen (NOx), and hydrogen sulfide

488. VWoA/VWGoA's model-year 2014 Beetle press kit, which is believed to have been published by VWoA/VWGoA in 2013 and to have continued to be publicly distributed by VWoA/VWGoA throughout the Class Period, stated:

Clean Diesel Leadership: Volkswagen pioneered the use of turbocharging and direct injection in diesel engines and continues to lead the industry in this technology. This isn't the first Beetle to be sold in the U.S. market with a diesel engine. From 1998 until 2006, the New Beetle was fitted with a 1.9-liter turbocharged four-cylinder diesel engine.

Since then this engine has been heavily revised to accommodate increasing demand for improvements in exhaust emissions and acoustics. One of the most fundamental improvements was converting the fuel-injection system to a commonrail design, as well as increasing the capacity by 72 cc thanks to a 1.5-mm wider bore.

The engine's turbocharger features adjustable guide vanes that maintain the best aspect ratio for low- and high-speed performance. In order to meet current tailpipe emissions standards in all 50 states, the engine makes use of both high-and low-pressure exhaust gas recirculation over all engine speeds, as well as an exhaust system that has a particulate filter and no fewer than three catalytic convertors: for oxidation, oxides of nitrogen (NOx), and hydrogen sulfide.

489. VWoA/VWGoA's model-year 2014 Passat press kit, which is believed to have been published by VWoA/VWGoA in 2013 and to have continued to be publicly distributed by VWoA/VWGoA throughout the Class Period, stated that "[t]he TDI engine is equipped with a Selective Catalytic Reduction System (SCR) that fulfills emissions requirements in all 50 states."

490. VWoA/VWGoA's model-year 2014 Touareg press kit, which is believed to have been published by VWoA/VWGoA in 2013 and to have continued to be publicly distributed by VWoA/VWGoA throughout the Class Period, stated that "[t]o achieve its 50 state emissions qualification, a deNOx catalytic converter, augmented by a special injection system that

sprays AdBlue® into the exhaust, helps reduce NOx emissions by up to 90 percent. This lets the engine meet the ULEV/Tier 2, BIN 5 standards imposed across all 50 U.S. states."

- 491. AoA's model-year 2014 Media Information Kits for the Audi A7/TDI/S7/RS7 and Audi A8/TDI/S7/S8.W12, which are believed to have been published by AoA in 2013 and to have continued to be publicly distributed by AoA throughout the Class Period, stated that the emissions of the A7 TDI and A8 TDI, respectively, complied with the ULEV2 regulatory standard.
- 492. A March 18, 2014 VWoA/VWGoA press release entitled "Volkswagen Group Of America Confirms Timing For New TDI® Clean Diesel Engine" stated:

"The Volkswagen Group is a leader in Clean Diesel technology," said [VWoA/VWGoA's Manager of Technical Strategy, Douglas] Skorupski. "With the introduction of the new EA288 engine, we are excited that our family of TDI Clean Diesel vehicles is continuing to improve and will be even cleaner and more fuel efficient and powerful. We're excited to see the increasing numbers of customers able to enjoy the reliability, durability, fuel-efficiency and power of Clean Diesel engines."

\* \* \*

The new EA288 engine will eventually replace all the 2.0-liter TDI Clean Diesel engines currently fitted in Audi and Volkswagen TDI Clean Diesel models. This turbocharged, common-rail, direct-injection four-cylinder engine makes 150 horsepower—an increase of 10 hp over the current engine—and 236 pound-feet of torque. This powerplant shares only the bore spacing with the previous diesel engine that had the same designation. A number of changes have been made to help reduce emissions, such as: use of a complex exhaust gas recirculation system; integration of the intercooler with the intake manifold, which also improves throttle response; and packaging the exhaust after-treatment components close to the engine.

493. A May 12, 2014 VWoA/VWGoA press release entitled "2015 Volkswagen Golf: The Best Hatchback Just Got Even Better" stated:

The compact EA288 engine has the intercooler for its turbocharger system integrated directly into the intake manifold, which serves a two-fold purpose of increasing throttle response and performance as well as helping lower emissions.

\* \* \*

Compared to the previous engine, emissions are reduced by up to 40 percent, helped by siting the exhaust after-treatment module close to the engine and by the use of a low-pressure exhaust gas recirculation system.

494. An August 27, 2014 VWoA/VWGoA press release entitled "2015 Volkswagen Jetta: Volkswagen's Best-Selling Sedan, Refined" stated:

Volkswagen's all-new diesel engine platform, the EA288, powers the 2015 Jetta TDI Clean Diesel model. It is one of the most fuel-efficient engines in its class, and already conforms to the upcoming LEV3 emissions standard in the U.S.

\* \* \*

The compact EA288 engine has the intercooler for its turbocharger system integrated directly into the intake manifold, which serves a two-fold purpose of increasing throttle response and performance as well as helping lower emissions.

495. An August 27, 2014 VWoA/VWGoA press release entitled "2015 Volkswagen Passat: Built in America, for America" and VWoA/VWGoA's model-year 2015 Passat press kit dated the same day both stated:

[T]he EA288 Clean Diesel TDI engine places strong emphasis on thermal management, which is evident in the cylinder head's two-section coolant jacket, as well as a three-part cooling circuit and switchable coolant pump. Compared to the previous engine, emissions are reduced by up to 40 percent, helped by siting the exhaust after-treatment module close to the engine and by the use of a low-pressure exhaust gas recirculation system.

496. An August 27, 2014 VWoA/VWGoA press release entitled "2015 Volkswagen Beetle: Iconic Looks, Modern Interpretation" stated:

Clean Diesel Leadership: Volkswagen pioneered the use of turbocharging and direct injection in diesel engines and continues to lead the industry in this technology. This isn't the first Beetle to be sold in the U.S. market with a diesel engine. From 1998 until 2006, the New Beetle was fitted with a 1.9-liter turbocharged four-cylinder diesel engine.

Since then, this engine has been heavily revised to accommodate increasing demand for improvements in exhaust emissions and acoustics. One of the most fundamental improvements was converting the fuel-injection system to a commonrail design, as well as increasing the capacity by 72 cc thanks to a 1.5-mm wider bore.

\* \* \*

The compact EA288 engine has the intercooler for its turbocharger system integrated directly into the intake manifold, which serves a two-fold purpose of increasing throttle response and performance as well as helping lower emissions.

\* \* \*

Compared to the previous engine, emissions are reduced by up to 40 percent, helped by siting the exhaust after-treatment module close to the engine and by the use of a low-pressure exhaust gas recirculation system.

497. An August 27, 2014 VWoA/VWGoA press release entitled "2015 Volkswagen Beetle Convertible: Everyday Drop-Top Fun For Four" stated:

The compact EA288 engine has the intercooler for its turbocharger system integrated directly into the intake manifold, which serves a two-fold purpose of increasing throttle response and performance as well as helping lower emissions.

\* \* \*

Compared to the previous engine, emissions are reduced by up to 40 percent, helped by siting the exhaust after-treatment module close to the engine and by the use of a low-pressure exhaust gas recirculation system.

- 498. VWoA/VWGoA's model-year 2015 Touareg press kit, which is believed to have been published by VWoA/VWGoA in 2014 and to have continued to be publicly distributed by VWoA/VWGoA throughout the Class Period, stated: "To achieve its 50-state emissions qualification, the 2015 Touareg is equipped with a deNOx catalytic converter augmented by a special injection system that sprays AdBlue® into the exhaust, helping to reduce NOx emissions. Thanks to this, the TDI meets ULEV/Tier 2, BIN 5 standards imposed across all 50 states."
- 499. AoA's Media Information Kits for the model-year 2015 Audi A3.TDI/S31, Audi A7/TDI/S7/RS7, and Audi Q7/TDI, which are believed to have been published by AoA in 2014 and to have continued to be publicly distributed by AoA throughout the Class Period, stated that the emissions of the A3 TDI, A7 TDI, and Q7 TDI, respectively, complied with the ULEV2 regulatory standard.

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record: Golf TDI Clean Diesel attains lowest fuel consumption on 48-state tour of the USA," which was also published by VW AG on a VW AG website, stated:

A July 10, 2015 VWoA/VWGoA press release entitled "New Guinness world

The Golf TDI Clean Diesel is sold in the USA and Canada. The 2.0-litre TDI engine has a power output of 110 kW / 150 PS, and its rated fuel economy is 45 miles per gallon (5.2 litres/100 km). The Golf TDI Clean Diesel also fulfils the most stringent emissions standards in the world: the LEV3 / TIER 3 standards in the USA.

- 501. The statements quoted in ¶470-500 were materially false and misleading because the vehicles in question actually did not comply with the cited regulatory standards for emissions; the vehicles (as demonstrated by the ICCT/WVU testing and as acknowledged by US, State, and European regulators) actually emitted NOx at levels far higher than permitted by the regulatory standards; the emissions-control technologies described in the statements did not reduce NOx emissions as much as Defendants said they did; and the vehicles only purported to achieve the low emissions misrepresented by Defendants and to comply with the regulatory standards because the vehicles were secretly equipped with illegal defeat devices.
- 502. The statements quoted in ¶¶470-500 also included material omissions because they failed to disclose that the vehicles at issue contained illegal defeat devices, emitted NOx in amounts far larger than represented by Defendants and permitted by applicable regulatory limits, and could not have been legally sold in the United States or Europe had the truth about the defeat devices and actual emission levels been revealed. Defendants were obligated to disclose these facts because they chose to speak about the vehicles' NOx emissions and compliance with emissions regulations.

## d) Defendants Made False Statements and Omissions in Marketing Brochures

503. VW AG's Specifications for the Golf, Jetta, and Passat 2012 stated that all TDI engines listed for these models (including the 2.0 liter) complied with Euro 5 "Emissionsklasse" except that two 2012 and 2013 "Blue TDI" Passat models complied with the Euro 6 N

"Emissionsklasse." A footnote stated that "[v]ehicles with Emissionsklasse Euro 5 get the green sticker."

504. AoA's model-year 2011 Audi A3 marketing brochure, which is believed to have been published by AoA in 2010 and to have continued to be publicly distributed by AoA during and throughout the Class Period, stated:

[T]he 2.0 TDI clean diesel also meets or exceeds the 50 state emissions requirements.

\*\*\*

TDI clean diesel is compliant with California's ULEV II requirement—the world's most stringent emission standard. The result is a significant reduction in emissions that contribute to global warming.

505. AoA's model-year 2011 Audi Q7 marketing brochure, which is believed to have been published by AoA in 2010 and to have continued to be publicly distributed by AoA during and throughout the Class Period, stated:

[TDI] produces fewer emissions thanks to the AdBlue system. As a particulateneutralizing system, it essentially scrubs the exhaust, helping the 3.0 TDI attain Ultra-Low Emissions Vehicle certification.

\*\*\*\*

[T]he 3.0 TDI clean diesel also meets or exceeds 50 state emissions requirements.

\*\*\*\*

One reason TDI clean diesel is so clean is because of the AdBlue® technology found in the TDI clean diesel exhaust system. AdBlue uses a urea-based solution that scrubs the exhaust gases and removes 90 percent of the nitrogen oxides and 20 percent of carbon emissions, making it compliant with ULEV II BIN 5. The result is a significant reduction in emissions that contribute to global warming.

506. AoA's 2012 Audi Family marketing brochure, which is believed to have been published by AoA in 2011 and to have continued to be publicly distributed by AoA throughout the Class Period, stated that "America is increasingly consuming Audi TDI® clean diesel technology.

... Maybe it's because the Audi TDI® clean diesel engine has achieved ultra-low emissions vehicle (Bin-5/ULEV) status in all 50 states ...."

- 507. AoA's 2012 Audi Q7 marketing brochure, which is believed to have been published by AoA in 2011 and to have continued to be publicly distributed by AoA throughout the Class Period, stated that "the Audi TDI® clean diesel engine . . . has achieved ultra-low emissions vehicle (Bin5/ULEV) status in all 50 states . . . ."
- 508. AoA's model-year 2013 Audi Q7 Product Information Book, which is believed to have been published by AoA in 2012 and to have continued to be publicly distributed by AoA throughout the Class Period, stated that the Q7 TDI's emissions complied with the "Tier 2 BIN5/ULEV II" regulatory standards.
- 509. AoA's 2013 Audi Q7 marketing brochure, which is believed to have been published by AoA in 2012 and to have continued to be publicly distributed by AoA throughout the Class Period, stated:

Factor in the ultra-low emissions (Bin5/ULEV) status in all 50 states with a 20 percent reduction in CO<sub>2</sub> emissions over comparably sized gasoline engines, and you understand the true power of progress.

\*\*\*\*

Innovative, advanced direct injection technology makes the Q7 TDI® clean diesel very responsive to the throttle, yet more fuel-efficient and emissions-low in output.

#### Combustion

Combining the high compression ratio with direct injection allows for a more thorough combustion, helping to ensure a highly efficient and lower emission process.

510. AoA's 2013 Audi Truth in Engineering marketing brochure, which is believed to have been published by AoA in 2012 and to have continued to be publicly distributed by AoA throughout the Class Period, stated: "America is increasingly consuming Audi TDI® clean diesel technology. . . . Maybe it's because the Audi TDI® clean diesel engine has achieved ultra-low emissions vehicle (Bin-5/ULEV) status in all 50 states . . . ."

511. AoA's model-year 2014 Audi A6, Audi A7, and Audi Q7 marketing brochures, which are believed to have been published by AoA in 2013, and AoA's model-year 2015 Audi A3, Audi A7, Audi A8, and Audi Q7 marketing brochures, which are believed to have been published by AoA in 2014, all stated:

The Audi TDI® clean diesel engine has achieved ultra-low emissions vehicle (Bin-5/ULEV II) status in all 50 states . . .

[TDI] After-exhaust treatment

With innovative diesel particulate filters and the nontoxic AdBlue® reducing agent, we eliminate up to 95% of diesel NOX emissions.

512. AoA's 2014 Audi Clean Diesel Brochure, which is believed to have been published by AoA in 2013 and to have continued to be publicly distributed by AoA throughout the Class Period, stated:

Clean diesel, the kind that powers Audi TDI® clean diesel technology, is demonstrably cleaner than the fuel used in previous generations of diesel engines. Innovations have removed much of the pollutants, resulting in lower CO2 emissions than even the output from comparable gasoline engines—while still delivering greater fuel efficiency. So what's the catch? We have a few that further clean the diesel exhaust. The names might sound daunting—close-coupled oxidation catalysts, coated particle filters, active exhaust gas after-treatment systems utilizing AdBlue® reducing agent, but the thing they do is simple. Audi employs these systems via sensors which detect the soot level and emissions of the exhaust to work at maximum efficiency, filtering excess pollutants and particles, which allows you, and everyone else, to breathe easier about clean diesel.

\*\*\*\*

#### AdBlue® system

Featuring a reducing agent that is a pure, transparent solution of 32.5% urea and water, AdBlue® is a diesel exhaust after-treatment that further purifies the exhaust by helping turn NOX emissions into harmless nitrogen and oxygen. AdBlue® is a nontoxic, noncombustible, biodegradable innovation that has helped make the use of diesel fuel in passenger cars OK in all 50 states, and has helped make diesel even cleaner.

\*\*\*\*

Yes, Audi TDI® clean diesel vehicles can be purchased in all 50 states.

513. The statements quoted in ¶¶504-12 were materially false and misleading because the vehicles in question actually did not comply with the cited regulatory standards for emissions; the vehicles (as demonstrated by the ICCT/WVU testing and as acknowledged by US, State, and European regulators) actually emitted NOx at levels far higher than permitted by the regulatory standards; the emissions-control technologies described in the statements did not reduce NOx emissions as much as Defendants said they did; and the vehicles only purported to achieve the low emissions represented by Defendants and to comply with the regulatory standards because the vehicles were secretly equipped with illegal defeat devices.

514. The statements quoted in ¶504-12 also included material omissions because they failed to disclose that the vehicles at issue contained illegal defeat devices, emitted NOx in amounts far larger than represented by Defendants and permitted by applicable regulatory limits, and could not have been legally sold in the United States or Europe had the truth about the defeat devices and actual emission levels been revealed. Defendants were obligated to disclose these facts because they chose to speak about the vehicles' NOx emissions and compliance with emissions regulations.

515. The following table summarizes which of the false statements quoted above were made by each Defendant:

Defendant(s)	False or Misleading Statement	Date	Complaint
			Paragraph(s)
VWoA/VWGoA	Press release entitled "Volkswagen's	January 4, 2009	417
	2.0L Turbo Clean Diesel Engine		
	Recognized as 2009 Ward's 10 Best		
	Engine"		
AoA	Press release entitled "Audi Covers	June 11, 2009	418
	the 24 Hours of Le Mans Race		
	Stateside on Social Media Websites"		
VWoA/VWGoA	Press release entitled "Volkswagen's	February 1, 2010	419
	2.0L TDI Clean Diesel Engine		
	Named a 'Ward's 10 Best Engine'		
	for 2010		
VWoA/VWGoA	Model-year 2010 Beetle, Touareg,	2009 through end	421
	and Passat marketing brochures	of Class Period	
VWoA/VWGoA	Model-year 2010 Golf marketing	2009 through end	422
	brochure	of Class Period	

1	Defendant(s)	False or Misleading Statement	Date	Complaint
	AMAY A MANAGO A	N. 1.1 2010 I 1	2000 1 1 1	Paragraph(s)
2	VWoA/VWGoA	Model-year 2010 Jetta marketing	2009 through end	423
		brochure	of Class Period	10.4
3	AoA	Model-year 2010 Audi A3	2009 through end	424
4		marketing brochure	of Class Period	10.7
7	AoA	Model-year 2010 Audi Q7	2009 through end	425
5		marketing brochure	of Class Period	
	VW AG and	2010 Annual Report	February 25,	431-35
6	Winterkorn		2011	
7	VW AG and	First Quarter 2011 Interim Report	April 27, 2011	431, 436
7	Winterkorn			
8	VW AG and	Second Quarter 2011 Interim Report	July 28, 2011	431, 437
	Winterkorn			
9	VW AG and	Third Quarter 2011 Interim Report	October 27, 2011	431, 438
	Winterkorn			
10	VW AG and	2011 Annual Report	February 15,	431, 439-42
1.1	Winterkorn		2012	
11	VW AG and	First Quarter 2012 Interim Report	April 26, 2012	431, 443
12	Winterkorn			
	VW AG and	Second Quarter 2012 Interim Report	July 26, 2012	431, 444
13	Winterkorn			
	VW AG and	Third Quarter 2012 Interim Report	October 24, 2012	431, 444
14	Winterkorn			
15	VW AG and	2012 Annual Report	February 22,	431, 445-51
13	Winterkorn		2013	
16	VW AG and	First Quarter 2013 Interim Report	April 29, 2013	431, 452
	Winterkorn	_		
17	VW AG and	Second Quarter 2013 Interim Report	July 31, 2013	431, 453
1.0	Winterkorn			
18	VW AG and	Third Quarter 2013 Interim Report	October 30, 2013	431, 454
19	Winterkorn		ŕ	
19	VW AG and	2013 Annual Report	February 21,	431, 455-57
20	Winterkorn	1	2014	,
	VW AG and	First Quarter 2014 Interim Report	April 29, 2014	431, 458
21	Winterkorn		,	,
22	VW AG and	Second Quarter 2014 Interim Report	July 31, 2014	431, 459
22	Winterkorn	Comment and comment and company		, , , , ,
23	VW AG and	Third Quarter 2014 Interim Report	October 30, 2014	431, 459
رد	Winterkorn	Quarter 201 : Interim Report	500000150, 2011	.52, 153
24	VW AG and	2014 Annual Report	February 17,	431, 460-62
	Winterkorn	2011 Timidal Report	2015	131, 100 02
25	VW AG and	First Quarter 2015 Interim Report	April 29, 2015	431, 463
26	Winterkorn	1 not Quarter 2010 interim Report	110111 27, 2013	151, 105
26	VV III.CIKUIII		1	1

1	Defendant(s)	False or Misleading Statement	Date	Complaint Paragraph(s)
2   3	VW AG, Winterkorn, and Diess	Second Quarter 2015 Interim Report	July 29, 2015	431, 464
4	VW AG and Diess	Third Quarter 2015 Interim Report	October 28, 2015	431
5	VW AG, VWGoA, VWoA, AoA	Emissions regulation compliance sticker	Throughout Class Period	428
7	AoA	Press release entitled "Inside the U.S. Audi Momentum Story"	January 7, 2011	470
8 9 10	VWoA/VWGoA	Press release entitled "Volkswagen Reveals the All-New Passat—A First-In-Class Vehicle That Delivers Superior German Engineering and Is Built in America"	January 9, 2011	471
11	VW AG	Press release entitled "Initial Facts: The Beetle"	April 18, 2011	472
12 13 14	VWoA/VWGoA	Press release entitled "Volkswagen Debuts the Sportiest, Most Fuel- Efficient Beetle Ever; Automotive Icon Gets a Major 21st Century Update"	April 18, 2011	473
15 16	VW AG	Press release entitled "32nd International Vienna Motor Symposium: Volkswagen steps up its use of plug-in hybrid technology"	May 6, 2011	474
17	VWoA/VWGoA	Press release entitled "To the point: The Beetle"	July 11, 2011	475
18 19	VW AG, Winterkorn	Press release entitled "Modern-day sustainability made by Volkswagen"	September 13, 2011	476
20	VWoA/VWGoA	Model-year 2012 Beetle press kit	2011 through end of Class Period	477
21	VWoA/VWGoA	Model-year 2012 Golf press kit	2011 through end of Class Period	478
22	VWoA/VWGoA	Model-year 2012 Passat press kit	2011 through end of Class Period	479
23	VWoA/VWGoA	Model-year 2012 Touareg press kit	2011 through end of Class Period	480
24   25	VWoA/VWGoA	Press release entitled "Volkswagen Passat Sets World Record for	May 7, 2012	481
26		Longest Distance on One Tank of Clean Diesel Fuel"		

Defendant(s)	False or Misleading Statement	Date	Complaint Paragraph(s)
VWoA/VWGoA	2012, the Best Year Ever for the Volkswagen Passat"	September 19, 2012	481
VWoA/VWGoA	Model-year 2013 Passat press kit	August 8, 2012	482
VWoA/VWGoA	Model-year 2013 Touareg press kit	2012 through end of Class Period	483
VWoA/VWGoA	Press release entitled "Seventh- Generation Volkswagen Golf Makes Its North American Debut At The New York International Auto Show"	March 27, 2013	484
VWoA/VWGoA	Model-year 2013 Beetle press kit	May 3, 2013	485
VWoA/VWGoA	Press release entitled "Volkswagen Group of America Underlines Diesel Strategy with New Engine Line"	August 6, 2013	486
VWoA/VWGoA	Press release entitled "2014 Volkswagen Beetle: Improving the Icon"	August 25, 2013	487
VWoA/VWGoA	Model-year 2014 Beetle press kit	2013 through end of Class Period	488
VWoA/VWGoA	Model-year 2014 Passat press kit	2013 through end of Class Period	489
VWoA/VWGoA	Model-year 2014 Touareg press kit	2013 through end of Class Period	490
AoA	Model-year 2014 Media Information Kits for the Audi A7/TDI/S7/RS7 and Audi A8/TDI/S7/S8.W12	2013 through end of Class Period	491
VWoA/VWGoA	Press release entitled "Volkswagen Group Of America Confirms Timing For New TDI® Clean Diesel Engine"	March 18, 2014	492
VWoA/VWGoA	Press release entitled "2015 Volkswagen Golf: The Best Hatchback Just Got Even Better"	May 12, 2014	493
VWoA/VWGoA	Press release entitled "2015 Volkswagen Jetta: Volkswagen's Best-Selling Sedan, Refined"	August 27, 2014	494
VWoA/VWGoA	Press release entitled "2015 Volkswagen Passat: Built in America, for America" and model- year 2015 Passat press kit	August 27, 2014	495
VWoA/VWGoA	•	August 27, 2014	496

Defendant(s)	False or Misleading Statement	Date	Complaint Paragraph(s)
VWoA/VWGoA	Press release entitled "2015 Volkswagen Beetle Convertible: Everyday Drop-Top Fun For Four"	August 27, 2014	497
VWoA/VWGoA	Model-year 2015 Touareg press kit	2014 through the end of the Class Period	498
AoA	Media Information Kits for the model-year 2015 Audi A3.TDI/S31, Audi A7/TDI/S7/RS7, and Audi Q7/TDI	2014 through the end of the Class Period	499
VW AG, VWoA/VWGoA	Press release entitled "New Guinness world record: Golf TDI Clean Diesel attains lowest fuel consumption on 48-state tour of the USA"	July 10, 2015	500
VW AG	Specifications for the Golf, Jetta, and Passat 2012	2010 through the end of the Class Period	503
AoA	Model-year 2011 Audi A3 marketing brochure	2010 through the end of the Class Period	504
AoA	Model-year 2011 Audi Q7 marketing brochure	2010 through the end of the Class Period	505
AoA	2012 Audi Family marketing brochure	2011 through the end of the Class Period	506
AoA	2012 Audi Q7 marketing brochure	2011 through the end of the Class Period	507
AoA	Model-year 2013 Audi Q7 Product Information Book	2012 through the end of the Class Period	508
AoA	2013 Audi Q7 marketing brochure	2012 through the end of the Class Period	509
AoA	2013 Audi Truth in Engineering marketing brochure	2012 through the end of the Class Period	510
AoA	Model-year 2014 Audi A6, Audi A7, and Audi Q7 marketing brochures	2013 through the end of the Class Period	511

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Defendant(s)	False or Misleading Statement	Date	Complaint Paragraph(s)
AoA	Model-year 2015 Audi A3, Audi A7, Audi A8, and Audi Q7 marketing brochures	2014 through the end of the Class Period	511
AoA	2014 Audi Clean Diesel Brochure	2013 through the end of the Class Period	512

#### C. Defendants' False Statements and Omissions About Emissions Technology and Compliance Were Material to Investors

- 516. The false statements quoted above were highly material to investors, as demonstrated by, among other things, Defendants' own statements.
- 517. In a January 31, 2011 VW AG press release, Defendant Winterkorn was quoted as saying that "Volkswagen's good name is our most valuable asset. There can be no compromises as far as complying with our code of conduct is concerned."
- 518. A May 4, 2015 VW AG press release entitled "Volkswagen Group publishes new sustainability report" again quoted Winterkorn concerning the importance of VW cars' environmental features to VW AG's value:
  - "As one of the world's largest industrial companies, we bear a special responsibility," emphasizes Prof. Dr. Martin Winterkorn, Chairman of the Board of Management of Volkswagen Aktiengesellschaft. "And we want to use our power for the benefit of people, the environment and society. For us, sustainability is not a 'nice to have'. Sustainability is a real, measurable value driver for our business."
- 519. A December 20, 2013 VWoA/VWGoA press release entitled "It's Official: Volkswagen Group of America Has Sold More Than 100,000 TDI® Clean Diesel Vehicles in 2013" similarly quoted Scott Keogh, President of AoA, as attributing AoA's strong sales to its purportedly low emissions of "greenhouse gases," which include NOx:

The past year has shown that American consumers clearly recognize the benefits of clean diesel TDI vehicles. . . . They understand now more than ever that this is a technology delivering real answers to society's concerns about fuel consumption and greenhouse gas emissions without compromises.

Furthermore, AoA and VWoA/VWGoA's monthly press releases reporting on their

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vehicle sales regularly reported the percentages of sales by model or by total sales that were the "TDI clean diesel" version.

#### XI. LOSS CAUSATION

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- 521. During the Class Period, as detailed in this Complaint, Defendants engaged in a course of conduct that knowingly or recklessly violated the law and regulatory standards, misstated the effectiveness of the Company's purportedly "clean diesel" technology, and underreported or understated Volkswagen's liabilities, costs, and reserves and therefore artificially inflated the price of Volkswagen ordinary and preference ADRs. As a result, Plaintiffs and members of the Class purchased Volkswagen ordinary and preference ADRs at artificially inflated prices and were damaged when the artificial inflation gradually dissipated when a series of corrective disclosures entered the market concerning Volkswagen's emissions scandal.
- 522. As alleged in this Complaint, the true facts concerning Volkswagen's undisclosed problems existed before the beginning of the Class Period and contradicted Defendants' repeated statements and disclosures concerning Volkswagen's cars' compliance with regulations, the accuracy of the Company's financial statements, and the effectiveness of Volkswagen's "clean diesel" technology and commitment to producing environmentally friendly cars. Given Volkswagen's active concealment of the emissions scandal, had the true facts been disclosed at any point during the Class Period, the effect of the revelations would have been the same as described below, and the artificial inflation in the price of Volkswagen's ordinary and preference ADRs would have dissipated earlier in the Class Period.
- 523. The artificial inflation in the price of Volkswagen's ordinary and preference ADRs began to be removed when the Company's emissions scandal began to be revealed to the market through a serious of partial disclosures. Investors suffered significant losses as the prices of Volkswagen ordinary and preference ADRs declined when the revelation of the Company's misconduct corrected its prior misstatements and the risks concealed by Defendants materialized. Accordingly, the decline in the prices of Volkswagen's ordinary and preference ADRs was a direct

and proximate result of Defendants' fraudulent conduct being revealed to investors and to the market. The timing and magnitude of the decline in the prices of the Company's ordinary and preference ADRs negates any inference that the economic losses and damages suffered by Plaintiffs and the other members of the Class were caused by changed market conditions, macroeconomic factors, or Company-specific facts unrelated to Defendants' fraudulent conduct.

- CARB announced that Volkswagen admitted to systematically defrauding investors and the public for years by deliberately cheating on US emissions tests and making its 2.0 liter diesel vehicles appear cleaner and more powerful than they actually were. Specifically, Volkswagen utilized in these cars an illegal defeat device that caused its vehicles to meet emissions standards when undergoing official testing, but during normal operation, caused the cars to emit NOx at up to 40 times the legal limit. Given the magnitude of the scandal, Volkswagen faced, at the time, potential fines and penalties of up to \$18 billion. This disclosure caused the price of the Company's ordinary ADRs to decline from \$38.03 per ADR on September 17, 2015 to \$36.31 per ADR on September 18, 2015, or approximately 5%. This disclosure also caused the price of Volkswagen's preference ADRs to decline from \$38.05 per ADR on September 17, 2015, to \$36.47 per ADR on September 18, 2015, or approximately 4%. Investors continued to assess and digest the significance of the announcement over the next several days, as additional information and details continued to be disseminated into the market.
- 525. **Second,** on Sunday, September 20, 2015, Defendant Winterkorn admitted that Volkswagen broke the public's trust by defrauding federal and state regulators, adding that he was "personally . . . deeply sorry for the breach of trust." Volkswagen announced that it would stop selling the affected vehicles in the United States. The next day, on Monday, September 21, 2015, the DoJ opened a criminal probe into the Company's scandal and the German government stated that it would investigate whether VW AG cheated emissions tests in Europe. Also on September 21, 2015, numerous authorities, regulators, professors, and analysts strongly denounced Volkswagen's actions and further exhibited the severity of Defendants' misconduct. On this news,

the price of the Company's ordinary ADRs declined from \$36.31 per ADR on September 18, 2015 to \$30.10 per ADR on September 21, 2015, or approximately 17%. This disclosure also caused the price of Volkswagen's preference ADRs to decline from \$36.47 per ADR on September 18, 2015 to \$29.77 per ADR on September 21, 2015, or approximately 18%.

- 526. **Third**, on September 22, 2015, Volkswagen's emissions crisis deepened as it revealed that 11 million vehicles worldwide contained the defeat devices used to evade emissions tests and that the Company would take a \$7.3 billion charge to earnings and cut its full-year outlook. Defendant Winterkorn again acknowledged "misconduct" on September 22, and Defendant Horn stated that "[o]ur company was dishonest with the [EPA], and the [CARB] and with all of you . . . [W]e've totally screwed up." On this news the price of the Company's ordinary ADRs declined from \$30.10 per ADR on September 21, 2015 to \$25.44 per ADR on September 22, 2015, or approximately 16%. This news also caused the price of the Company's preference ADRs to drop from \$29.77 per ADR on September 21, 2015 to \$23.98 per ADR on September 22, 2015—a decline of nearly 20%.
- 527. **Fourth**, on September 25, 2015, Volkswagen announced that it suspended a group of senior engineers involved in developing the Company's "clean diesel" technology and that it hired the Jones Day law firm to conduct an investigation into the diesel scandal. Also on September 25, the EPA initiated testing of all Volkswagen model-year 2015 and 2016 light-duty diesel models available in the United States using updated procedures specifically designed to detect potential defeat devices. These disclosures caused the price of the Company's ordinary ADRs to drop from \$27.16 per ADR on September 24, 2015 to \$25.68 per ADR on September 25, 2015, or over 5%, and the price of its preference ADRs to drop from \$25.53 per ADR on September 24, 2015 to \$23.98 per ADR on September 25, 2015, or approximately 6%.
- 528. **Fifth**, on Saturday, September 26, 2015, *Frankfurter Allgemeine Zeitung* reported that Volkswagen's own technicians warned the Company at least as early as 2011 about the illegality of its emissions practices. Corroborating those claims, on Sunday, September 27, 2015, *Bild* reported that Bosch warned Volkswagen's "top circles" as early as 2007 not to use the devices

for illegal purposes and that the Company's plans for the devices were, in fact, "illegal." Further, on September 28, 2015, prosecutors in Germany announced that they opened a criminal investigation into Defendant Winterkorn and other Volkswagen executives to determine whether they committed fraud through the sale of vehicles with manipulated emissions data. This news caused the price of Volkswagen's ordinary ADRs to decline from \$25.68 per ADR on September 25, 2015 to \$23.97 per ADR on September 28, 2015, or almost 7%. The disclosures also caused the price of Volkswagen's preference ADRs to drop from \$23.98 per ADR on September 25, 2015 to \$22.39 per ADR on September 28, 2015, a similar 7% decline.

- 529. **Sixth**, on October 2, 2015, Volkswagen's scandal expanded further as France and Italy launched probes into the Company to investigate suspicions of "aggravated deception." Further, the *New York Times* reported on October 2 that Attorneys General from at least 30 states and the District of Columbia were quickly progressing with their bipartisan investigation into allegations of consumer fraud and violations of environmental regulations by Volkswagen, and that they had served subpoenas on the Company and its divisions. These disclosures caused the price of Volkswagen ordinary ADRs to decline from \$23.72 per ADR on October 1, 2015 to \$23.07 per ADR on October 2, 2015, or approximately 3%. These disclosures also caused the price of Volkswagen preference ADRs to decline from \$21.75 per ADR on October 1, 2015 to \$20.99 per ADR on October 2, 2015, or approximately 3%.
- 530. **Seventh**, on October 15, 2015, Volkswagen was ordered to recall 8.5 million diesel cars in Europe equipped with emissions-cheating technology. On this news, the price of Volkswagen ordinary ADRs declined from \$29.24 per ADR on October 14, 2015 to \$28.19 per ADR on October 15, 2015, or approximately 4%. This news also caused the price of Volkswagen preference ADRs to decline from \$24.55 per ADR on October 14, 2015 to \$23.54 per ADR on October 15, 2015, or approximately 4%.
- 531. **Eighth**, on November 2, 2015, the EPA issued a second NOV to Volkswagen stating that the Company also developed and installed defeat devices in larger vehicles equipped with 3.0 liter diesel engines for model-years 2014 through 2016. Those cars, when being driven

under normal conditions, emitted NOx up to nine times the EPA's standard. The disclosure of the second NOV caused the price of Volkswagen ordinary ADRs to decline from \$27.00 per ADR on November 2, 2015 to \$25.49 per ADR on November 3, 2015, or approximately 6%. This disclosure also caused the price of Volkswagen preference ADRs to decline from \$24.12 per ADR on November 2, 2015 to \$23.20 per ADR on November 3, 2015, or approximately 4%.

532. **Ninth**, on January 4, 2016, the DoJ sued Volkswagen for illegally selling approximately 580,000 vehicles equipped with 2.0 and 3.0 liter diesel engines that contained illegal defeat devices, were not properly certified by the EPA, and violated environmental laws, among other things. The DoJ suit seeks up to \$48 billion in damages. On this news, the price of Volkswagen ordinary ADRs declined from \$30.10 per ADR on January 4, 2016 to \$28.34 per ADR on January 5, 2016, or approximately 6%. This news also caused the price of the Company's preference ADRs to decline from \$27.30 per ADR on January 4, 2016 to \$26.16 per ADR on January 5, 2016, or approximately 4%.

#### XII. PRESUMPTION OF RELIANCE

- 533. Plaintiffs and Class members are entitled to a presumption of reliance on Defendants' material misrepresentations and omissions pursuant to the fraud-on-the-market doctrine because, at all relevant times, the market for Volkswagen ordinary and preference ADRs was open, efficient, and well-developed for the following reasons, among others:
  - (a) Volkswagen ordinary and preference ADRs met the requirements for listing, and were listed and actively traded on the over-the-counter market, a highly liquid and efficient market;
  - (b) The prices of Volkswagen ordinary and preference ADRs reacted promptly to the dissemination of new information regarding the Company. Volkswagen ordinary and preference ADRs were actively traded throughout the Class Period, with substantial trading volume and average weekly turnover and high institutional-investor participation.

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- (c) At all relevant times during the Class Period, the price of Volkswagen ordinary ADRs traded in strict correlation with the price of Volkswagen ordinary shares, and the price of Volkswagen preference ADRs traded in strict correlation with the price of Volkswagen preferred stock;
- (d) Volkswagen ordinary and preferred stock met the requirements for listing, and were listed and actively traded on the Xetra Stock Exchange, a highly liquid and efficient market;
- (e) The prices of Volkswagen ordinary and preferred stock reacted promptly to the dissemination of new information regarding the Company. Volkswagen ordinary and preferred stock were actively traded throughout the Class Period, with substantial trading volume and average weekly turnover and high institutional-investor participation;
- (f) As a regulated issuer, Volkswagen filed periodic and annual reports with the company register in Germany (Unternehmensregister) and the over-the-counter market;
- (g) Volkswagen regularly communicated with public investors via established market communication mechanisms, including through regular dissemination of press releases on the national circuits of major newswire services and through other wide-ranging public disclosures, such as communications with the financial press and other similar reporting services; and
- (h) Volkswagen was followed extensively by the media and by at least 25 securities analysts employed by major brokerage firms who wrote well in excess of 1,100 analyst reports about Volkswagen during the Class Period, which were distributed to those brokerage firms' sales forces and certain customers. Each of these reports was publicly available and entered the public market place.
- 534. As a result of the foregoing, the market for Volkswagen ordinary and preference ADRs promptly digested current information regarding Volkswagen from all publicly available sources and reflected that information in the prices of Volkswagen's ordinary and preference

ADRs. Under these circumstances, all purchasers of Volkswagen ordinary and preference ADRs during the Class Period suffered similar injury through their purchase of Volkswagen ordinary and preference ADRs at artificially inflated prices, and a presumption of reliance applies.

535. Plaintiffs and Class members are also entitled to a presumption of reliance under *Affiliated Ute Citizens of Utah v. United States*, 406 U.S. 128 (1972), because the claims asserted in this Complaint against Defendants are predicated in part upon material omissions of facts that Defendants had a duty to disclose.

### XIII. INAPPLICABILITY OF THE STATUTORY SAFE HARBOR AND BESPEAKS CAUTION DOCTRINE

- 536. The statutory safe harbor and bespeaks caution doctrine applicable to forward-looking statements under certain circumstances do not apply to any of the false and misleading statements pleaded in this Complaint. Nor can Defendants' omissions of material fact be subject to the safe harbor or bespeaks caution doctrine.
- 537. None of the statements complained of in this Complaint was a forward-looking statement. Rather, they were historical statements or statements of purportedly current facts and conditions at the time the statements were made, including statements about the effectiveness of the Company's "clean diesel" technology, its cars' compliance with environmental regulations and true level of performance, and the accuracy of Volkswagen's financial statements.
- 538. To the extent that any of the false and misleading statements alleged in this Complaint can be construed as forward-looking, those statements were not accompanied by meaningful cautionary language identifying important facts that could cause actual results to differ materially from those in the statements. As alleged above in detail, then-existing facts contradicted Defendants' statements regarding Volkswagen's reported profits and contingencies, the effectiveness of the Company's "Clean Diesel" technology, and its cars' compliance with environmental regulations and true level of performance, among other things. Given the then-existing facts contradicting Defendants' statements, any risk disclosures made by Volkswagen

were not sufficient to insulate Defendants from liability for their materially false and misleading statements.

539. To the extent that the statutory safe harbor does apply to any forward-looking statements pleaded in this Complaint, Defendants are liable for those materially false and misleading forward-looking statements because at the time each of those statements was made, the particular speaker knew that the particular forward-looking statement was false or misleading, or the false and misleading forward-looking statement was authorized or approved by an executive officer of Volkswagen who knew that the statement was false or misleading when made.

#### XIV. CLASS ACTION ALLEGATIONS

540. Plaintiffs bring this action as a class action under Fed. R. Civ. P. 23(a) and 23(b)(3) on behalf of a class consisting of all those who purchased or otherwise acquired Volkswagen ordinary ADRs (CUSIP: 928662303) and all those who purchased or otherwise acquired Volkswagen preference ADRs (CUSIP: 928662402) from November 19, 2010 through January 4, 2016, inclusive (the "Class Period"), and who were damaged thereby (the "Class"). Excluded from the Class are Defendants, the officers and directors of VW AG, VWGoA/VWoA, and AoA at all relevant times, members of their immediate families and their legal representatives, heirs, agents, affiliates, successors or assigns, and any entity in which Defendants or their immediate families have or had a controlling interest. For the avoidance of doubt, "affiliates" are persons or entities that directly, or indirectly through one or more intermediaries, control, are controlled by, or are under common control with one of the Defendants, and include any employee benefit plan organized for the benefit of Volkswagen's employees.

541. The members of the Class are so numerous that joinder of all members is impracticable. While the exact number of Class members is unknown to Plaintiffs at this time and can only be ascertained through appropriate discovery, Plaintiffs believe that there are at least tens of thousands of members of the proposed Class. Class members who purchased Volkswagen ordinary or preference ADRs may be identified from records maintained by Volkswagen, its

transfer agent(s), or the sponsor of the ADR programs, J.P. Morgan, and may be notified of this class action using a form of notice similar to that customarily used in securities class actions.

- 542. Plaintiffs' claims are typical of Class members' claims, as all members of the Class were similarly affected by Defendants' wrongful conduct in violation of federal law that is complained of in this Complaint.
- 543. Plaintiffs will fairly and adequately protect Class members' interests and have retained competent counsel experienced in class actions and securities litigation.
- 544. Common questions of law and fact exist as to all Class members and predominate over any questions solely affecting individual Class members. Among the questions of law and fact common to the Class are:
  - (a) Whether the federal securities laws were violated by Defendants' acts as alleged in this Complaint;
  - (b) Whether Defendants' regulatory filings, press releases, reports, and other public statements disseminated to the investing public during the Class Period contained material misstatements or omitted to state material information;
  - (c) Whether and to what the extent the market prices of the Company's securities were artificially inflated during the Class Period due to the non-disclosures and misrepresentations complained of in this Complaint;
  - (d) Whether Defendants acted with scienter; and
  - (e) Whether the members of the Class have sustained damages as a result of the misconduct complained of in this Complaint, and if so, the proper measure of damages.
- 545. A class action is superior to all other available methods for the fair and efficient adjudication of this action because joinder of all Class members is impracticable. In addition, the damage suffered by some individual Class members may be relatively small so that the burden and expense of individual litigation make it impossible for those members to individually redress the wrong done to them. There will be no difficulty in the management of this action as a class action.

#### XV. CLAIMS FOR RELIEF

#### **COUNT ONE**

For Violations of Section 10(b) of the Exchange Act and Rule 10b-5, Asserted Against VW AG, VWGoA, VWoA, AoA, Winterkorn, and Diess

- 546. Plaintiffs repeat and reallege each of the allegations above as if fully alleged in this Count.
- 547. This claim is brought under Section 10(b) of the Exchange Act and Rule 10b-5 on behalf of Plaintiffs and the other members of the Class against VW AG, VWGoA, VWoA, AoA, Winterkorn, and Diess.
- 548. As alleged in this Complaint, throughout the Class Period, VW AG, VWGoA, VWoA, AoA, Winterkorn, and Diess, individually and in concert, directly and indirectly, by the use of the means or instrumentalities of interstate commerce, including without limitation the US mails and interstate telephone communications, made untrue statements of material fact and omitted to state material facts necessary to make their statements not misleading and carried out a plan, scheme, and course of conduct, in violation of Section 10(b) of the Exchange Act and Rule 10b-5. VW AG, VWGoA, VWoA, AoA, Winterkorn, and Diess intended to and did, as alleged in this Complaint, (1) deceive the investing public, including Plaintiffs and the other members of the Class; (2) artificially inflate and maintain the prices of Volkswagen ADRs; and (3) cause Plaintiffs and the other members of the Class to purchase or acquire Volkswagen ADRs at artificially inflated prices.
- 549. VW AG, VWGoA, VWoA, AoA, Winterkorn, and Diess were individually and collectively responsible for making the material misstatements and omissions alleged in this Complaint and for engaging in a plan, scheme, and course of conduct designed to deceive Plaintiffs and the other members of the Class, by virtue of having spoken, written, prepared, approved, signed, and disseminated documents that contained untrue statements of material fact and omitted facts necessary to make the statements in the documents not misleading.
- 550. As alleged in this Complaint, VW AG, VWGoA, VWoA, AoA, Winterkorn, and Diess made their false and misleading statements and omissions and engaged in the activity

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described in this Complaint knowingly and intentionally or in such a reckless manner as to constitute willful deceit and fraud upon Plaintiffs and the other members of the Class who purchased or acquired Volkswagen ADRs during the Class Period.

- 551. In ignorance of the false and misleading nature of Defendants' statements and omissions, and relying directly or indirectly on those statements and omissions or upon the integrity of the market prices for Volkswagen ADRs, Plaintiffs and the other members of the Class purchased or acquired Volkswagen ADRs at artificially inflated prices during the Class Period. But for the material misstatements and omissions, Plaintiffs and the other members of the Class would not have purchased or acquired Volkswagen ADRs at artificially inflated prices. As alleged in this Complaint, when the true facts were subsequently disclosed, the prices of Volkswagen ADRs declined precipitously. Plaintiffs and the other members of the Class were harmed and damaged as a direct and proximate result of their purchases of Volkswagen ADRs at artificially inflated prices and the subsequent declines in the prices of Volkswagen ADRs when the truth was disclosed.
- 552. By reason of the foregoing, VW AG, VWGoA, VWoA, AoA, Winterkorn, and Diess are liable to Plaintiffs and the other members of the Class for violations of Section 10(b) of the Exchange Act and Rule 10b-5.

# COUNT TWO For Violations of Section 20(a) of the Exchange Act, Asserted Against VW AG and the Officer Defendants

- 553. Plaintiffs repeat and reallege each of the allegations above as if fully alleged in this Count.
- 554. This claim is brought under Section 20(a) of the Exchange Act against VW AG and the Officer Defendants (Winterkorn, Horn, and Diess) on behalf of Plaintiffs and the other members of the Class.
- 555. As alleged in this Complaint, Defendants Winterkorn and Diess caused VW AG, VWGoA, VWoA, and AoA to violate Section 10(b) and Rule 10b-5 by making material misstatements and omissions in connection with the purchase and sale of securities and by

participating in a scheme and course of business or conduct throughout the Class Period. This conduct was undertaken with the scienter of Defendants Winterkorn and Diess, who knew of or recklessly disregarded the falsity of VW AG's, VWGoA's, VWoA's, and AoA's statements or their omissions of material fact and the nature of their scheme during the Class Period.

- AoA to violate Section 10(b) and Rule 10b-5 by making material misstatements and omissions in connection with the purchase and sale of securities and by participating in a scheme and course of business or conduct throughout the Class Period. This conduct was undertaken with the scienter of VW AG, which knew of or recklessly disregarded the falsity of VWGoA's, VWoA's, and AoA's statements or their omissions of material fact and the nature of their scheme during the Class Period.
- 557. As alleged in this Complaint, Defendant Horn caused VWGoA and VWoA to violate Section 10(b) and Rule 10b-5 by making material misstatements and omissions in connection with the purchase and sale of securities and by participating in a scheme and course of business or conduct throughout the Class Period. This conduct was undertaken with the scienter of Defendant Horn, who knew of or recklessly disregarded the falsity of VWGoA's and VWoA's statements or their omissions of material fact and the nature of their scheme during the Class Period.
- AoA during the Class Period, due to (a) Winterkorn's and Diess's senior executive positions at VW AG; (b) Winterkorn's and Diess's direct involvement in VW AG's day-to-day operations, financial reporting, and accounting and Winterkorn's and Diess's signatures on and participation in the preparation and dissemination of VW AG's public statements and regulatory actions; (c) VW AG's ownership of 100% of VWGoA's and VWoA's America's stock and approximately 99.55% of AoA's stock; (d) VW AG's possession and exercise of the authority to appoint all of VWGoA's, VWoA's, and AoA's directors and executive officers; (e) VW AG's direct involvement in VWGoA's, VWoA's and AoA's day-to-day operations, financial reporting,

accounting, and regulatory actions; (f) Winterkorn's position as chair of VWGoA's board of directors; and (g) Winterkorn's and Diess's participation in the preparation and dissemination of VWGoA's, VWoA's, and AoA's public statements.

- 559. By virtue of the foregoing, Winterkorn and Diess each had the power to influence and control, and did influence and control, directly or indirectly, VW AG's, VWGoA's, VWoA's, and AoA's decision-making, including the content of VW AG, VWGoA's, VWoA's, and AoA's public statements.
- 560. VW AG was a controlling person of VWGoA, VWoA, and AoA during the Class Period, due to VW AG's (a) ownership of 100% of VWGoA's and VWoA's America's stock and approximately 99.55% of AoA's stock; (b) possession and exercise of the authority to appoint all of VWGoA's, VWoA's, and AoA's directors and executive officers; (c) direct involvement in VWGoA's and AoA's day-to-day operations, financial reporting, accounting, and regulatory actions; and (d) participation in the preparation and dissemination of VWGoA's, VWoA's, and AoA's public statements.
- 561. By virtue of the foregoing, VW AG had the power to influence and control, and did influence and control, directly or indirectly, VWGoA's, VWoA's, and AoA's decision-making, including the content of VWGoA's, VWoA's, and AoA's public statements.
- 562. Horn was a controlling person of VWGoA and VWoA during the Class Period. He was a longtime veteran of VW AG in Germany, having joined the Company in 1990 and served as head of sales and marketing for Volkswagen's premium vehicles, then as head of European sales, and then as head of global after sales. He was handpicked by Winterkorn (according to a Dow Jones report on July 14, 2014) to "reboot[] [VWGoA's] U.S. strategy," and turn VWGoA around after a period of slumping sales. Horn was considered "a seasoned VW executive with deep ties to Wolfsburg," VW AG's headquarters. *Automotive News*, Jan. 24, 2015. As *Automotive News* reported in January 2015, "[i]t appears that the management team in Wolfsburg trusts him, believes in him and fully supports him." *Automotive News* further reported in February 2015 that US VW dealers "value the fact that [Horn]'s a German schooled in VW's inner workings, giving him the

clout to win what the U.S. market needs to thrive." The Wall Street Journal reported on December 11, 2014 that "[f]rustrated with slow U.S. progress, Mr. Winterkorn last December fired the head of Volkswagen of America and appointed a Wolfsburg insider, Michael Horn. Mr. Horn argued for profound change to make VW more American and give its U.S. operation more autonomy from Wolfsburg. . . . With that goal in mind, Mr. Winterkorn formed a new North America Committee. The group, consisting of U.S. executives [including, on information and belief, Horn] and about half of VW's management board, has met at least five times since February." Horn was personally involved in VWGoA's response to the ICCT report starting on or about March 31, 2014 (¶241); he personally received notice no later than May 20, 2014 that VWGoA could face EPA fines of up to \$37,500 for each of 500,000–600,000 vehicles equipped with illegal defeat devices and that "Intent = penalty!" (Crim. Complt. ¶37); and he sent an email to multiple VW AG board members and executives in Germany on July 21, 2015 warning that certification of the MY 2016 Generation 3 vehicles was at risk if Volkswagen did not satisfy CARB's requests for information (¶213). These facts, combined with (a) Horn's senior executive position at VWGoA and VWoA; (b) direct involvement in VWGoA's and VWoA's day-to-day operations, financial reporting, and accounting and signatures on and participation in the preparation and dissemination of VWGoA's and VWoA's public statements and regulatory actions; and (c) possession and exercise of the authority to appoint all of VWGoA's and VWoA's directors and executive officers, made him a controlling person of VWGoA and VWoA. By virtue of the foregoing, Horn had the power to influence and control, and did influence and control, directly or indirectly, VWGoA's and VWoA's decision-making, including the content of VWGoA's and VWoA's public statements.

563. In ignorance of the false and misleading nature of Defendants' statements and omissions, and relying directly or indirectly on those statements and omissions or upon the integrity of the market prices for Volkswagen ADRs, Plaintiffs and the other members of the Class purchased or acquired Volkswagen ADRs at artificially inflated prices during the Class Period. But for the material misstatements and omissions, Plaintiffs and the other members of the Class would not have purchased or acquired Volkswagen ADRs at artificially inflated prices. As alleged

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in this Complaint, when the true facts were subsequently disclosed, the prices of Volkswagen ADRs declined precipitously. Plaintiffs and the other members of the Class were harmed and damaged as a direct and proximate result of their purchases of Volkswagen ADRs at artificially inflated prices and the subsequent decline in the prices of those securities when the truth was disclosed.

564. By reason of the foregoing, VW AG and the Officer Defendants are liable to Plaintiffs and the other members of the Class for violations of Section 20(a) of the Exchange Act.

#### XVI. PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for relief and judgment individually, and on behalf of the Class, as follows:

- Declaring this action to be a proper class action under Rule 23 of the Federal Rules (a) of Civil Procedure;
- (b) Awarding compensatory damages in favor of Plaintiffs and the other Class members against all Defendants, jointly and severally, for all damages sustained as a result of Defendants' wrongdoing, in an amount to be proven at trial, including interest on that amount;
- Awarding Plaintiffs and members of the Class their reasonable costs and expenses (c) incurred in this action, including attorneys' and experts' fees and expenses; and
- (d) Awarding such equitable, injunctive, and other relief as the Court may deem just and proper.

#### XVII. JURY DEMAND

Plaintiffs hereby demand a trial by jury for all issues so triable.

Dated: February 3, 2017 Respectfully submitted, 1 2 BERNSTEIN LITOWITZ BERGER & GROSSMANN LLP 3 /s/ Niki L. Mendoza 4 NIKI L. MENDOZA (Bar No. 214646) nikim@blbglaw.com 5 12481 High Bluff Drive, Suite 300 San Diego, CA 92130 6 Telephone: (858) 793-0070 7 Facsimile: (858) 793-0323 8 -and-9 JAMES A. HARROD (pro hac vice) JAI CHANDRASEKHAR (pro hac vice) 10 ADAM D. HOLLANDER (pro hac vice) ROSS SHIKOWITZ (pro hac vice) 11 1251 Avenue of the Americas New York, NY 10020 12 Telephone: (212) 554-1400 Facsimile: (212) 554-1444 13 14 Attorneys for Lead Plaintiff ASHERS, Plaintiff Miami Police, and 15 Lead Counsel in the Securities Actions 16 17 18 19 20 21 22 23 24 25 26 27

#### UNITED STATES DISTRICT COURT

#### NORTHERN DISTRICT OF CALIFORNIA

IN RE: VOLKSWAGEN "CLEAN DIESEL" MARKETING, SALES PRACTICES, AND PRODUCTS LIABILITY LITIGATION

MDL No. 2672 CRB (JSC)

**CLASS ACTION** 

**COMPLAINT** 

This Document Relates To: *City of St. Clair Shores*, 15-1228 (E.D. Va.)

Travalio, 15-7157 (D.N.J.)

George Leon Family Trust 15-7283 (D.N.J.)

George Leon Family Trust, 15-7283 (D.N.J.) Charter Twp. of Clinton, 15-13999 (E.D. Mich.)

Judge: Hon. Charles R. Breyer Courtroom: 6, 17th Floor

SECURITIES CLASS ACTION

FIRST AMENDED CONSOLIDATED

Wolfenbarger, 15-326 (E.D. Tenn.)

GLOSSARY OF DEFINED AND KEY TERMS, ENTITIES, AND INDIVIDUALS

**ASHERS** Court-appointed Lead Plaintiff Arkansas State Highway Employees' Retirement System. **ADRs** American Depositary Receipts, a US dollar denominated form of equity ownership in a non-US company, representing the foreign shares of the company and carrying the corporate and economic rights of the foreign shares. Defendant Audi of America, Inc., the US operating subsidiary of AoA Defendant VW AG responsible for Audi AG's domestic business. Audi Aktiengesellschaft. Audi AG An automotive design element that senses temperature, vehicle Auxiliary emission control device speed, engine revolutions per minute, or other parameters for the purpose of activating, modulating, delaying, or deactivating the vehicle's emission control system. Mark Barnes, VWGoA's Vice President of Sales and Aftersales. Barnes Wolfgang Bernhard, CEO of the Volkswagen brand from 2005 to Bernhard 2007. An EPA Tier 2 emissions certification category that requires certified Bin 5 vehicles to emit less than 0.05 grams per mile of NOx during their intermediate life and 0.07 grams per mile of NOx during their full useful life. BlueTec Marketing name for a Mercedes-designed SCR system. Bosch Robert Bosch GmbH. Karl Brauer, an analyst at Kelley Blue Book. Brauer

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1	CARB	California Air Resources Board.
1	CEO	Chief Executive Officer.
2	Christoph R.	Pseudonym given to a high-level official in Volkswagen's legal
		department who is reported to have directed colleagues to delete
3		incriminating material days before sending out a litigation hold.
4	Class	All those who purchased or otherwise acquired Volkswagen Ordinary
4		ADRs and all those who purchased or otherwise acquired
5		Volkswagen Preference ADRs from November 19, 2010 through
		January 4, 2016, inclusive, and who were damaged thereby.
6	Class Period	November 19, 2010 through January 4, 2016, inclusive.
_	"Clean diesel"	Volkswagen's diesel vehicles, equipped with TDI engines, which
7		purportedly met governing emissions standards while providing a
8		high-performance driving experience.
8	CO2	Carbon dioxide.
9	Company	VW AG.
	Crim. Cmplt.	United States v. Schmidt, No. 2:16-mj-30588, Criminal Complaint
10		(E.D. Mich. filed Dec. 30, 2016) (Exhibit 3 to this Complaint).
11	DBSI	Deutsche Bank Securities, Inc.
11	DEF	Diesel exhaust fluid containing urea, used as part of an SCR system
12		to treat exhaust gases and reduce NOx emissions.
	Defeat device	An auxiliary emission control device that reduces the effectiveness of
13		emissions control systems under conditions that may reasonably be
1.4		expected to be encountered in normal vehicle operation and use.
14	Defendants	VW AG, VWGoA, VWoA, AoA, Winterkorn, Diess, and Horn.
15	Diess	Defendant Herbert Diess, member of the VW AG Management
10		Board and Chairman of the Volkswagen Passenger Cars Brand since
16		July 2015.
1.7	Dobrindt	Alexander Dobrindt, German Minister of Transportation.
17	Doerfler	Peter Doerfler, Volkswagen's head of group auditing and anti-
18		corruption officer, whose departure was announced on October 21,
10		2015.
19	DoJ	US Department of Justice.
• •	Donovan	Daniel Donovan, a former VWGoA employee who has sued
20		VWGoA claiming wrongful termination for reporting and objecting
21	D 1	to the intentional spoliation of evidence by VWGoA.
21	Dorenkamp	Richard Dorenkamp, Volkswagen's former head of technical
22		development for low-emission engines, who was suspended on
	DEC	October 21, 2015.
23	DTC	Depository Trust Company, the entity that runs the principal US
24	D 1 1 CC	securities clearing and settlement system.
24	Dudenhoeffer	Ferdinand Dudenhoeffer, a leading automotive expert and director of
25		the Center for Automotive Research at the University of Duisberg-
	Dyma aalibaati	Essen. The gode name for the settings that the defeat devices in
26	Dyno calibration	The code name for the settings that the defeat devices in
		Volkswagen's vehicles triggered when the vehicles were undergoing

1		emissions testing on a dynamometer, such that the vehicles produced
1		NOx emissions that complied with governing standards.
2	Dyno mode	Dyno calibration.
_	EDC	Electronic diesel control computer systems.
3	EDC17	The EDC, manufactured by Bosch, that Volkswagen used to control
4		its engine emissions.
4	Eichler	Friedrich Eichler, a supervisor in charge of the VW Brand Engine
5		Development department from in or about October 2013 to at least January 11, 2017.
6	EPA	The United States Environmental Protection Agency.
_	Euro-5	European Union emissions standard implemented in September 2009.
7	Euro-6	European Union emissions standard implemented in September 2014.
8	Exchange Act	The Securities Exchange Act of 1934, 15 U.S.C. § 78, et seq.
8	FIRREA	The Financial Institutions Reform, Recovery and Enforcement Act.
9	FTC	The United States Federal Trade Commission.
	GM	General Motors.
10	Gottweis	Bernd Gottweis, a veteran Volkswagen quality-assurance executive
11		also known as the "fireman."
11	Hackenberg	Dr. Ulrich Hackenberg, a longtime confidant and coworker of
12		Winterkorn, whom Winterkorn named as a senior VW AG engineer
		in charge of research and development.
13	Hadler	Jens Hadler, a supervisor in charge of the VW Brand Engine
		Development department from in or about May 2007 to in or about
14		March 2011.
15	Hatz	Wolfgang Hatz, a longtime confidant and coworker of Winterkorn,
13		whom Winterkorn named as a senior VW AG engineer in charge of
16		engine development.
	Horn	Defendant Michael Horn, President and CEO of VWGoA and
17		president of VWoA from January 2014 until his resignation on
18		March 9, 2016.
10	IAS	International Accounting Standards.
19	IAS 37	IAS standard governing when a company is required to recognize a
		"provision" for contingencies.
20	ICCT	International Council on Clean Transportation.
21	IFRS	International Financial Reporting Standards
21	Jelden	Hanno Jelden, Volkswagen's head of powertrain electronics, who
22		was suspended on October 25, 2015.
	Jones Day	Law firm Jones Day, which is conducting an internal investigation
23		into Volkswagen's emissions-cheating scandal.
	KBA	Kraftfahrt-Bundesamt, the German Federal Motor Transport
24		Authority.
25	Krebs	Rudolf Krebs, a supervisor in charge of the VW Brand Engine
23		Development department from in or about May 2005 to in or about
26		April 2007.
	Lead Plaintiff	ASHERS.
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1	LEV	CARB's Low Emission Vehicle standards.
1	LEV II	Low Emission Vehicle II standards, adopted by CARB in 1998 and
2		phased in from 2004 to 2010.
	LEV III	Low Emission Vehicle III standards, adopted by CARB in January
3		2012 and to be phased in from 2015 to 2025.
4	Lutz	Bob Lutz, a longtime high-ranking executive at numerous car
4		companies.
5	Miami Police	Plaintiff Miami Police Relief and Pension Fund.
	MSRP	Manufacturer suggested retail price.
6	Müller	Matthias Müller, VW AG CEO since September 2015.
_	Neußer	Hanz-Jakob Neuβer, a member of the VW AG Management Board
7		and head of development at VW AG.
8	NOV	Notice of Violation issued by the EPA.
	NOx	Nitrogen oxides, a family of highly reactive gases that interact with
9		volatile organic compounds in the atmosphere to form ozone, a
10		principal component of smog.
10	NOx traps	A NOx emissions-reduction system used by Volkswagen in many of
11		its TDI vehicles during the Class Period.
11	Officer Defendants	Defendants Winterkorn, Horn, and Diess.
12	Peter	Jürgen Peter, who worked for VW AG's certification group from in
		or about 1990 until at least January 11, 2017 and was one of VW
13		AG's liaisons with US regulatory agencies between about March
14	D' 1	2015 and about July 2015.
17	Piech	Ferdinand Piech, VW AG's CEO from 1992 to 2002 and Supervisory
15	D' 1 / ' 1	Board Chairman from 2002 until early 2015.
1.6	Pischetsrieder	Bernd Pischetsrieder, Volkswagen AG CEO from 2002 to 2006.
16	Plaintiffs Poetsch	ASHERS and Miami Police.
17	Poetscn	Hans Dieter Poetsch, Chairman of VW AG's Supervisory Board since October 2015.
1,	Porsche	
18	PZEV	Porsche Automobil Holding SE (a 50.7% owner of VW AG).  Partial Zero Emission Vehicles, an emissions category under the
10		LEV II standards.
19	Road calibration	The code name for the settings in which Volkswagen's vehicles
20	Road Carioration	installed with defeat devices operated when driven on the road, such
_		that the vehicles produced full power and torque but reduced the
21		effectiveness of emissions controls and produced NOx emissions in
22		excess of governing standards.
22	Rudolph	Falko Rudolph, head of Volkswagen's main transmissions plant in
23	r	Kassel, Germany.
	Rule 10b-5	17 C.F.R. § 240.10b-5.
24	Schmidt	Oliver Schmidt, former General Manager, Energy and Environmental
25		Office, VWGoA.
25	SCR	Selective catalytic reduction, a system used to reduce NOx emissions
26		from diesel vehicles by injecting urea-containing DEF.

1	SOF	The Statement of Facts attached as Exhibit 2 to <i>United States v</i> .
1		Volkswagen AG, Rule 11 Plea Agreement, No. 16-CR-20394 (E.D.
2		Mich. filed Jan. 11, 2017) (attached as Exhibit 1 to this Complaint).
	SSI	United States v. Dorenkamp, et al., No. 2:16-cr-20394, Second
3		Superseding Indictment (E.D. Mich. filed Jan. 11, 2017) (Exhibit 2 to
4		this Complaint).
4	SULEV II	Super Ultra Low Emission Vehicles II, an emissions category under
5		the CARB LEV II standards.
	SULEV III	Super Ultra Low Emission Vehicles III, an emissions category under
6	TTD Y	the CARB LEV III standards.
7	TDI	Turbocharged direct injection, a type of diesel engine developed and
/		produced by VW AG and used in Volkswagen's "clean diesel"
8	Tier 2	vehicles.
	11er 2	EPA emission standards phased in between 2004 and 2009, with full
9	Tier 3	compliance required by 2009.  EPA emission standards enacted in March 2014, to be phased in from
10		2017 through 2025.
10	Tuch	Frank Tuch, VW AG's chief quality officer and head of Group
11	I ucii	Quality Assurance beginning in September 2010, until his resignation
		in February 2016.
12	UBSFSI	UBS Financial Services, Inc.
13	ULEV II	Ultra Low Emission Vehicles II, an emissions category under the
13		CARB LEV II standards.
14	ULEV III	Ultra Low Emission Vehicles III, an emissions category under the
		CARB LEV II standards.
15	Vahland	Winifried Vahland, who spent 25 years at the Company and was
16		named head of its North America division on September 15, 2015
		before resigning on October 14, 2015.
17	Volkswagen	Defendants VW AG, VWGoA, VWoA, and AoA.
18	VW AG	Defendant Volkswagen Aktiengesellschaft. VW AG is the parent
10		company of the Volkswagen Group, which comprises twelve brands,
19		including Volkswagen, Audi, Seat, Skoda, Bentley, Bugatti,
		Lamborghini, Porsche, Ducati, Scania, Man, and Volkswagen
20	THIS A	Commercial Vehicles.
21	VWGoA	Defendant Volkswagen Group of America, Inc., a wholly owned
21		subsidiary of VW AG that houses the US operations of VW AG's
22	X7XX7 A	brands.
	VWoA	Defendant Volkswagen Group of America, Inc. d/b/a/ Volkswagen of
23		America, Inc., an operating unit of VWGoA and a subsidiary of VW
24	Winterkorn	AG. Defendant Martin Winterkorn, CEO and Chairman of the VW AG
<b>∠</b> +	WHILLIKUIII	Management Board from January 1, 2007 until his resignation on
25		September 23, 2015.
	WVU	West Virginia University.
26		Trest riginia Chiversity.

#### **CERTIFICATE OF SERVICE**

I hereby certify that on February 3, 2017, I caused the foregoing to be electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to the email addresses denoted on the Electronic Mail Notice List.

# BERNSTEIN LITOWITZ BERGER & GROSSMANN LLP

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