

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF MICHIGAN

_____	)	
UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No.
	)	
FCA US LLC,	)	
FIAT CHRYSLER AUTOMOBILES N.V.,	)	
V.M. MOTORI S.P.A.	)	
and	)	
V.M. NORTH AMERICA, INC.,	)	
	)	
Defendants.	)	
_____	)	

**I. COMPLAINT**

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency (“EPA”), files this complaint and alleges as follows:

**II. NATURE OF ACTION**

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act (“Act”), 42 U.S.C. §§ 7523 and 7524, and the regulations promulgated pursuant to Section 202 of the Act, 42 U.S.C. § 7521, and codified at 40 C.F.R. Part 86 (Control of Emissions from New and In-Use Highway Vehicles

and Engines). This action seeks injunctive relief and the assessment of civil penalties against FCA US LLC (“FCA US”), V.M. Motori S.p.A. (“VM Italy”), V.M. North America, Inc. (“VM North America”), and Fiat Chrysler Automobiles N.V. (“FCA NV”) (collectively, “Defendants”), for violations of the Act and the regulations promulgated thereunder. VM Italy and VM North America are, together, referred to as “VM Motori.”

2. Between 2013 and 2016, Defendants illegally sold or caused the illegal sale of approximately 103,828 diesel-fueled new motor vehicles, under the Ram 1500 and Jeep Grand Cherokee model names, (“Subject Vehicles”) that do not comply with the Act. The applications for Certificates of Conformity (“COC”) for the Subject Vehicles did not disclose at least eight software-based features that affect the Subject Vehicles’ emission control system. Consequently, each Subject Vehicle differs from the specifications provided in the COC applications and none of the Subject Vehicles is certified by the COC that purportedly covered it. In addition, one or more of these undisclosed software features, alone or in combination with one or more of the others, bypass, defeat and/or render inoperative the Subject Vehicles’ emission control system, causing the vehicles to emit substantially higher levels of NO<sub>x</sub> during certain normal real world driving conditions than during federal emission tests.

3. The Subject Vehicles are further identified in Paragraphs 73 and 74.

The undisclosed software features that affect the Subject Vehicles' emission control system, also referred to in this Complaint as Auxiliary Emission Control Devices ("AECDS"), are further described in Paragraphs 106 through 119.

### **III. JURISDICTION AND VENUE**

4. The United States District Court for the Eastern District of Michigan has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

5. This Court has personal jurisdiction over Defendant FCA US under Mich. Compiled Laws §§ 600.711 and 600.715, and the exercise of such jurisdiction is consistent with due process.

6. FCA US transacts business in Michigan. FCA US is headquartered in Auburn Hills, Michigan, which is located within this judicial district. FCA US employees worked on the Subject Vehicles while located at the Auburn Hills office. In addition, FCA US has performed the following within the Eastern District of Michigan: manufactured the majority of the Subject Vehicles, performed emissions tests on the Subject Vehicles, met with EPA regulators about the Subject Vehicles, submitted information for COC applications for the Subject Vehicles, met with VM Italy and VM North America about the Subject Vehicles, met with FCA NV to

discuss the Subject Vehicles, and communicated with VM Italy, VM North America, and FCA NV relating to the Subject Vehicles.

7. FCA US imported into the United States, sold, offered for sale, introduced into commerce, or delivered the Subject Vehicles with the intent to market and sell them in all 50 states, including Michigan, and Subject Vehicles were sold in Michigan.

8. This Court has personal jurisdiction over VM Italy and VM North America under Mich. Compiled Laws §§ 600.711 and 600.715, and the exercise of such jurisdiction is consistent with due process.

9. At times relevant to this action, VM North America maintained a place of business and transacts business in Michigan. Employees of VM North America were physically present in the company's office in Auburn Hills, Michigan, while working on engine calibration and air emission issues related to the Subject Vehicles. VM North America also frequently met and communicated with FCA US in Auburn Hills about the Subject Vehicles.

10. VM Italy transacts business in Michigan. VM Italy employees were physically present in Auburn Hills, Michigan, while working on engine calibration and air emission issues related to the Subject Vehicles. Some VM North America employees who worked at the Auburn Hills office indicated that they were also employees of VM Italy. VM Motori's Calibration Leader for the Subject Vehicles

was based in the Auburn Hills office and, while working on the Subject Vehicles, reported to management at both VM North America and VM Italy. VM Italy employees in Italy communicated regularly with the VM North America and VM Italy employees in the Auburn Hills office regarding the Subject Vehicles. VM Italy also communicated frequently with FCA US about the Subject Vehicles.

11. VM Italy and VM North America manufactured, imported, sold, offered for sale, or delivered the EcoDiesel engines with the knowledge and intent that they would be used in all of the Subject Vehicles and that the Subject Vehicles would be marketed and sold in all 50 states, including Michigan. Subject Vehicles with VM Italy engines were sold in Michigan.

12. In addition, VM Italy and VM North America caused the sale, offer for sale, introduction into commerce, delivery, or importation into the United States of the Subject Vehicles with the intent that they be marketed and sold in all 50 states, including Michigan, and Subject Vehicles were sold in Michigan.

13. This Court has personal jurisdiction over Defendant FCA NV under Mich. Compiled Laws §§ 600.711 and 600.715, and the exercise of such jurisdiction is consistent with due process.

14. FCA NV transacts business in Michigan. FCA NV is the corporate parent of FCA US, VM Italy and VM North America. The day-to-day operations of FCA US in Auburn Hills, Michigan, are managed by a team comprised of

employees from FCA NV and FCA US. Certain members of FCA NV's management team, known as the Group Executive Committee, are based in Auburn Hills, Michigan, and conduct business there.

15. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that FCA NV employees oversaw or were responsible for approving elements of design and/or strategies related to emissions compliance for the Subject Vehicles.

16. FCA NV manufactured, imported, sold, offered for sale, introduced into commerce, delivered, or imported into the United States the Subject Vehicles, or caused any of the foregoing, with the intent to market and sell them in all 50 states, including Michigan, and Subject Vehicles were sold in Michigan.

17. Venue is proper in the Eastern District of Michigan pursuant to 28 U.S.C. §§ 1391(b)(2), 1391(c)(2) and 1395(a), as well as Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because it is the judicial district in which Defendants are located, reside, are doing business, and/or in which a substantial part of the alleged violations in the Complaint occurred.

#### **IV. DEFENDANTS**

18. FCA US designs, engineers, manufactures and sells new motor vehicles. FCA US is incorporated under the laws of the State of Delaware, and is an indirect wholly-owned subsidiary of FCA NV. FCA US was formerly known as the

Chrysler Group LLC. Beginning in 2009, Fiat S.p.A. (a predecessor of FCA NV) began to acquire ownership interests in FCA US. In January of 2014, FCA US became an indirect wholly-owned subsidiary of FCA NV.

19. FCA US is a “person” within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

20. FCA US is a “manufacturer” within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

21. VM Italy is an Italian corporation that, among other things, designs and manufactures diesel-fueled motor vehicle engines. In 2011, Defendant FCA NV (known as Fiat S.p.A. at the time) acquired a 50 percent ownership interest in VM Italy. In October 2013, VM Italy became an indirect wholly-owned subsidiary of FCA NV. VM Italy is an affiliate of FCA US.

22. The corporate headquarters of VM Italy is in Cento, Italy.

23. VM North America was created to support the North American customers of VM Italy. VM North America was incorporated under the laws of the State of Delaware in 2004. VM North America ceased to be a corporation in good standing under laws of the State of Delaware due to a failure to pay required annual taxes and/or fees in 2015 and 2016.

24. VM Italy is a “person” within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

25. VM North America is, or was at times relevant to this action, a “person” within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

26. VM Italy is a “manufacturer” within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

27. VM North America is, or was at times relevant to this action, a “manufacturer” within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. In October of 2014, Fiat S.p.A. and Fiat Investments N.V. merged to form FCA NV. FCA NV is an international automotive group engaged in designing, engineering, manufacturing, distributing and selling of, among other things, new motor vehicles and vehicle components. FCA NV is organized under the laws of the Netherlands and its principal executive offices are located in London, England. VM Italy, VM North America, and FCA US are indirect wholly-owned subsidiaries of FCA NV.

29. FCA NV is a “person” within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. FCA NV is a “manufacturer” within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. At times relevant to this action, each Defendant described in Paragraphs 18 through 30 sold, offered for sale, introduced into commerce, delivered for



introduction into commerce, or imported into the United States the Subject Vehicles, or caused one or more of the foregoing acts with respect to the Subject Vehicles.

**V. STATUTORY AND REGULATORY BACKGROUND**

32. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides (“NO<sub>x</sub>”) and other pollutants from mobile sources of air pollution, including new motor vehicles.

33. NO<sub>x</sub> pollution contributes to the formation of harmful smog and soot, exposure to which is linked to a number of respiratory- and cardiovascular-related health effects as well as premature death. Children, older adults, people who are active outdoors (including outdoor workers), and people with heart or lung disease are particularly at risk for health effects related to smog or soot exposure. Nitrogen dioxide formed by NO<sub>x</sub> emissions can aggravate respiratory diseases, particularly asthma, and may also contribute to asthma development in children.

34. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emission standards for new motor vehicles for NO<sub>x</sub> and other air pollutants.

35. Section 216(1) of the Act defines “manufacturer” as “any person engaged in the manufacturing or assembling of new motor vehicles, new motor

vehicle engines, [...] or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles [or] new motor vehicle engines [...].” 42 U.S.C. § 7550(1).

36. Section 216(2) of the Act defines “motor vehicle” as “any self-propelled vehicle designed for transporting persons or property on a street or highway.” 42 U.S.C. § 7550(2).

37. As defined by section 216(3) of the Act, a “new motor vehicle” is a “motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser” or, with respect to imported vehicles or vehicles offered for importation, a “new motor vehicle” is a “motor vehicle [...] manufactured after the effective date of a regulation issued under section 202 [of the Act, 42 U.S.C. § 7521] which is applicable to such vehicle [...] (or which would be applicable to such vehicle [...] had it been manufactured for importation into the United States).” 42 U.S.C. § 7550(3).

38. Light-duty motor vehicles must satisfy emission standards for certain air pollutants, including emission standards for NO<sub>x</sub>. *See e.g.* 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10, and 86.1818-12.

39. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues certificates of

conformity (“COCs”) and thereby regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of new motor vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of motor vehicles with similar engine design and subject to the same emission standards for pollutants regulated under the Act. *See, e.g.*, 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Each COC application must be in writing and signed by an authorized representative of the manufacturer and it must include a statement that the motor vehicles in the test group comply with all applicable regulations in 40 C.F.R. Chapter I. 40 C.F.R. § 86.1844-01(d).

42. Manufacturers may submit COC applications electronically through EPA’s “Verify” system. Verify is EPA’s compliance information system for engines, motor vehicles, and equipment used in transportation and other mobile source applications. Manufacturers use Verify to submit certification and compliance information for emissions and fuel economy. Before a manufacturer can submit a COC application through Verify, the system requires the manufacturer to confirm that the test group that is the subject of the application complies with the applicable federal emissions regulations.

43. Motor vehicles are covered by a COC only if the motor vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

44. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs upon such terms "deemed necessary or appropriate to assure that any new motor vehicle covered by the certificate will meet the requirements of the Act and [40 C.F.R. Part 86]").

45. Before a COC will be issued, manufacturers must submit to EPA the information required by 40 C.F.R. § 86.1844-01(d). 40 C.F.R. § 86.1843-01(c).

46. Each COC application must include, among other things, a list of all AECDs installed on the motor vehicles, as well as a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and a rationale for why it is not a defeat device. 40 C.F.R. § 86.1844-01(d)(11).

47. An AECD, or auxiliary emission control device, is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

48. An element of design is “any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine.” 40 C.F.R. § 86.1803-01.

49. A new motor vehicle containing an AECD that is not disclosed in the COC application does not conform in all material respects with the COC application and, therefore, is not covered by the COC.

50. A “defeat device” is an AECD that “reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . .” 40 C.F.R. § 86.1803-01.

51. No new motor vehicles may be equipped with defeat devices. 40 C.F.R. § 86.1809-12.

52. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, or delivering for introduction into commerce, or any person from importing into the United States, any new motor vehicle not covered by a COC

issued by EPA under regulations prescribed under the Act governing motor vehicle emission standards. *See also* 40 C.F.R. § 86.1854-12(a)(1).

53. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), makes it a violation “for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under [Title II of the Act] prior to its sale and delivery to the ultimate purchaser . . .” *See also* 40 C.F.R. § 86.1854-12(a)(3)(i).

54. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation “for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under [Title II of the Act], and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use.” *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

55. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that “[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting

in compliance” with Part A of Title II of the Act.

56. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the Act, 42 U.S.C. § 7542. *See also* 40 C.F.R. § 86.1854-12(a)(2)(i).

57. It is also a violation to cause any of the violative acts set forth in Section 203(a). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

## **VI. GENERAL ALLEGATIONS**

58. At all times relevant to this action, FCA US engaged in the business of manufacturing or assembling the new motor vehicles identified in Paragraphs 73 and 74 as the Subject Vehicles.

59. At all times relevant to this action, FCA US sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts for) the Subject Vehicles.

60. At all times relevant to this action, FCA NV engaged in the business of manufacturing or assembling the Subject Vehicles.

61. At all times relevant to this action, FCA NV sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States the Subject Vehicles, or caused one or more of the foregoing

acts.

62. FCA US employed VM Italy and VM North America to provide the engine to be used in, and engine calibration and other services relating to, the Subject Vehicles.

63. FCA NV employed VM Italy and VM North America to provide the engine to be used in, and engine calibration and other services relating to, the Subject Vehicles, or caused VM Italy and VM North America to be employed for such purposes.

64. At all times relevant to this action, FCA US oversaw VM Italy and VM North America's work on the Subject Vehicles.

65. At all times relevant to this action, FCA NV oversaw VM Italy and VM North America's work on the Subject Vehicles.

66. Employees from VM Italy and VM North America worked jointly on the Subject Vehicles.

67. At all times relevant to this action, VM Italy engaged in the business of manufacturing or assembling new motor vehicle engines for the Subject Vehicles.

68. At times relevant to this action, VM North America engaged in the business of manufacturing or assembling new motor vehicle engines for the Subject Vehicles.

69. At all times relevant to this action, VM Italy was acting for and was



under the control of a person who was engaged in the business of manufacturing or assembling the Subject Vehicles.

70. At times relevant to this action, VM North America was acting for and was under the control of a person who was engaged in the business of manufacturing or assembling the Subject Vehicles.

71. At all times relevant to this action, VM Italy caused the Subject Vehicles to be sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States.

72. At times relevant to this action, VM North America caused the Subject Vehicles to be sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States.

73. The Subject Vehicles are the following models which are equipped with an EcoDiesel V6 engine: Model Year 2014 Ram 1500, Model Year 2015 Ram 1500, Model Year 2016 Ram 1500, Model Year 2014 Jeep Grand Cherokee, Model Year 2015 Jeep Grand Cherokee, and Model Year 2016 Jeep Grand Cherokee.

74. The Subject Vehicles are also identified by the following EPA test groups: ECRXT03.05PV (Model Year 2014 Ram 1500 and Jeep Grand Cherokee); FCRXT03.05PV (Model Year 2015 Ram 1500 and Jeep Grand Cherokee); and GCRXT03.05PV (Model Year 2016 Ram 1500 and Jeep Grand Cherokee).

75. The Subject Vehicles identified in Paragraphs 73 and 74 are “new motor vehicles” as defined Section 216(3) of the Act. 42 U.S.C. § 7550(3).

76. In total, approximately 103,828 Subject Vehicles have been sold in the United States.

77. For each Subject Vehicle test group identified in Paragraph 74, FCA US submitted to EPA an application for a COC.

78. As a part of the COC application process for the Subject Vehicles, FCA US submitted lists of AECDs through EPA’s Verify system for each test group.

79. VM Italy performed engine calibrations, including calibrations involving AECDs, for the Subject Vehicles.

80. VM North America performed engine calibrations, including calibrations involving AECDs, for the Subject Vehicles.

81. VM Italy provided information to FCA US that FCA US incorporated into the COC application documents it submitted to EPA.

82. VM North America provided information to FCA US that FCA US incorporated into the COC application documents it submitted to EPA.

83. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that members of FCA NV management were involved in the process of gathering and/or approving certain information regarding FCA US’ submissions as part of its COC applications for the Subject Vehicles.

84. While FCA US was logged into EPA's Verify system to submit COC application information for the Subject Vehicles, FCA US made entries in that system representing that the Subject Vehicles complied with the applicable emissions regulations, including those in 40 C.F.R. Part 86.

85. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

86. Based on the information and representations FCA US included in the COC applications for the Subject Vehicles, EPA issued COCs for the Subject Vehicles on the following dates: Model Year 2014 Ram 1500 and Jeep Grand Cherokee COC issued on September 27, 2013; Model Year 2015 Ram 1500 and Jeep Grand Cherokee COC issued on September 17, 2014; and Model Year 2016 Ram 1500 and Jeep Grand Cherokee COC issued on July 1, 2015.

87. Each of the COCs issued by EPA for the Subject Vehicles states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

**A. Emission Control System in the Subject Vehicles**

88. NO<sub>x</sub> emissions from diesel engines can be reduced using engine control systems and after-treatment systems. Diesel-fueled motor vehicles can use a

combination of these systems in order to comply with emission standards.

89. Engine control systems reduce NO<sub>x</sub> by employing strategies to reduce the amount of NO<sub>x</sub> that is formed in the vehicle engine during combustion. For example, recirculating a portion of the exhaust gas to the combustion chamber lowers both the peak combustion temperature of and the oxygen concentration in that chamber, thereby reducing the formation of NO<sub>x</sub> in the engine. This engine control system is known as “Exhaust Gas Recirculation” (“EGR”).

90. After-treatment systems remove NO<sub>x</sub> from the exhaust after combustion but prior to emission from the tailpipe of the motor vehicle. One example of an after-treatment system is a Selective Catalytic Reduction (“SCR”) system, which injects a urea solution into the exhaust stream in order to produce a chemical reaction to reduce NO<sub>x</sub> to nitrogen and water. The urea solution is known as diesel exhaust fluid, or “DEF.”

91. Each Subject Vehicle contains an EGR system and an SCR system.

#### **B. Electronic Control Modules in the Subject Vehicles**

92. Modern vehicle engines are equipped with electronic control modules (“ECMs”) that control functions in the motor vehicles using software integrated in the ECM hardware. For each function (for example, the rate of fuel injected into the engine), the software includes algorithms that process inputs (for example, engine speed or ambient temperature) to the ECM and send a message to the components of

the engine to perform certain actions depending on those inputs. The ECM software includes a large number of software variables that can be set by the manufacturer and which define the thresholds (*e.g.*, engine coolant temperature) or other values used in the software algorithms. Manufacturers calibrate these individual software variables to establish, among other things, the motor vehicle's emissions performance. The collection of all of the manufacturer-selected values is referred to as the calibration.

93. ECM software that senses inputs such as ambient temperature, engine speed, or duration of engine operation and then sends a message to control the operation of a component of the emission control system in the motor vehicle is an "AECD" within the meaning of 40 C.F.R. § 86.1803-01.

94. The Defendants obtained the ECMs and related ECM software for the Subject Vehicles from Robert Bosch LLC and/or Robert Bosch GmbH ("Bosch").

95. VM Italy and VM North America calibrated the ECM software for the Subject Vehicles while under the supervision of FCA US and FCA NV.

96. The Defendants frequently engaged in discussions with Bosch regarding calibrations of the ECMs and related ECM software for the Subject Vehicles.

97. The Defendants requested that Bosch change the parameters for certain functions in the ECM software to customize the ECM software for the

Subject Vehicles.

### **C. Undisclosed AECDs in the Subject Vehicles**

98. The COC applications for the Subject Vehicles describe elements of design that were installed in the Subject Vehicles to comply with federal emissions regulations, including engine control systems and after-treatment control systems.

99. The COC applications for the Subject Vehicles describe, and each of the Subject Vehicles contains, an EGR system that was installed to reduce the formation of NO<sub>x</sub> in the motor vehicle engine.

100. The COC applications for the Subject Vehicles describe, and each of the Subject Vehicles contains, an SCR after-treatment control system that was installed to reduce NO<sub>x</sub> prior to emission from the tailpipe of the Subject Vehicles.

101. Each engine control system and after-treatment control system described in the COC applications and installed in the Subject Vehicles, and each component thereof, is a device or element of design that was installed in the Subject Vehicles to comply with the regulations promulgated under Title II of the Act.

102. The ECM of each Subject Vehicle employs AECDs in the form of specific software functions and calibrations. These AECDs rely on inputs such as vehicle speed, coolant temperature, the duration of the engine's operation, and NO<sub>x</sub> concentration in the exhaust, for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.

103. During federal emission testing, including the test cycle generally known as the Federal Test Procedure and other test cycles used for emission testing required to obtain a COC (collectively, the “Federal Emission Tests”), the Subject Vehicles’ ECM software functions and calibrations operate the EGR and SCR systems in a manner that produces emission results that are compliant with emission standards.

104. When the Subject Vehicles are operating outside the parameters of the Federal Emission Tests, AECs installed on or in the Subject Vehicles cause the emission control system to underperform or shut off.

105. During normal vehicle operation outside of the parameters of the Federal Emission Tests, the Subject Vehicles’ ECM software functions and calibrations cause a reduction in the effectiveness of the emission control system, including the engine control system and the after-treatment control system, resulting in increased NO<sub>x</sub> emissions. The magnitude of the emissions increase depends on, among other things, the type of Subject Vehicle and the driving conditions.

106. The following eight AECs, when engaged individually or in combination with one or more of the other eight AECs, impact the emission control system of the Subject Vehicles:

- a. AEC #1 (full EGR shut-off at highway speed);
- b. AEC #2 (reduced EGR with increasing vehicle speed);

- c. AECD #3 (EGR shut-off for exhaust valve cleaning);
- d. AECD #4 (DEF dosing disablement during SCR adaptation);
- e. AECD #5 (EGR reduction due to modeled engine temperature);
- f. AECD #6 (SCR catalyst warm-up disablement);
- g. AECD #7 (alternative SCR dosing modes); and
- h. AECD #8 (use of load governor to delay ammonia refill of SCR catalyst).

107. The eight AECDs identified in Paragraph 106 were not disclosed in the Subject Vehicles' COC applications (collectively, "Undisclosed AECDs").

108. Specifically, Defendants did not disclose AECD # 1 in the COC applications for the following Subject Vehicles: Model Year 2014 Ram 1500s and Model Year 2014 Jeep Grand Cherokees.

109. AECD # 1 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject Vehicles in the COC applications identified in Paragraph 108.

110. Defendants did not disclose AECD # 2 in the COC applications for the following Subject Vehicles: Model Year 2015 Ram 1500s, Model Year 2016 Ram 1500s, Model Year 2015 Jeep Grand Cherokees, and Model Year 2016 Jeep Grand Cherokees.



111. AECD # 2 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject Vehicles in the COC applications identified in Paragraph 110.

112. Defendants did not disclose AECD # 3 in the COC applications for the following Subject Vehicles: Model Year 2014 Ram 1500s, Model Year 2015 Ram 1500s; Model Year 2014 Jeep Grand Cherokees, and Model Year 2015 Jeep Grand Cherokees.

113. AECD # 3 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject Vehicles in the COC applications identified in Paragraph 112.

114. Defendants did not disclose AECD #s 4, 5, 6, 7, and 8 in any of the COC applications for the Subject Vehicles.

115. AECD # 4 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject Vehicles in each of the COC applications.

116. AECD # 5 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject Vehicles in each of the COC applications.

117. AECD # 6 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject

Vehicles in each of the COC applications.

118. AECD # 7 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject Vehicles in each of the COC applications.

119. AECD # 8 is a design specification of the manufactured Subject Vehicles that differs in material respects from the description of the Subject Vehicles in each of the COC applications.

120. Each Subject Vehicle contains one or more AECDs that were not disclosed in the application for the COC that purportedly covers each Subject Vehicle.

121. The Subject Vehicles therefore are not covered by a COC.

122. When engaged individually, or in combination with the other Undisclosed AECDs, one or more of the Undisclosed AECDs in the Subject Vehicles have a principal effect of bypassing, defeating, or rendering inoperative engine control systems and/or after-treatment control systems installed in the Subject Vehicles.

123. FCA US, FCA NV, VM Italy, and VM North America knew or should have known that the Undisclosed AECDs were part of the Subject Vehicles that were being offered for sale or installed for such use or put to such use.

124. When engaged individually, or in combination with the other

Undisclosed AECDs, one or more of the Undisclosed AECDs in the Subject Vehicles remove or render inoperative engine control systems and/or after-treatment control systems installed in the Subject Vehicles.

**VII. FIRST CLAIM FOR RELIEF**

**(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs, or Causing Any of the Foregoing Activities)**

125. The United States realleges paragraphs 1 through 124 above as if fully set forth herein.

126. FCA US violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), when it sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 103,828 Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the Subject Vehicles do not conform in all material respects to the motor vehicle description in the applications for the COCs that purportedly cover them, in that the Subject Vehicles are equipped with Undisclosed AECDs.

127. FCA NV violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), when it sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 103,828 Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the Subject Vehicles do not conform in all material respects to the motor vehicle description in the

applications for the COCs that purportedly cover them, in that the Subject Vehicles are equipped with Undisclosed AECDs.

128. VM Italy and VM North America violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by causing the sale, offer for sale, introduction into commerce, delivery for introduction into commerce, or importation of the approximately 103,828 Subject Vehicles that were not covered by COCs because the Subject Vehicles do not conform in all material respects to the motor vehicle description in the applications for the COCs that purportedly cover them, in that the Subject Vehicles, including their engines, are equipped with Undisclosed AECDs.

129. Each Defendant's violations of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

130. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), and 40 C.F.R. § 19.4, FCA US, FCA NV, VM Italy, and VM North America are each liable for injunctive relief and civil penalties of up to \$37,500 per motor vehicle for each violation occurring between January 13, 2009 and November 2, 2015, and up to \$45,268 per motor vehicle for each violation occurring after November 2, 2015.

**VIII. SECOND CLAIM FOR RELIEF**

**(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of any Parts or Components that Bypass, Defeat or Render Inoperative any Emission Controls, or Causing Any of the Foregoing Activities)**

131. The United States realleges paragraphs 1 through 124 above as if fully set forth herein.

132. FCA US, VM Italy, and VM North America manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, the Subject Vehicles where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the Subject Vehicles in compliance with regulations under Title II of the Act, and each Defendant knew or should have known that such part or component was being offered for sale or installed for such use or put to such use. Such parts or components include one or more of the Undisclosed AECDs, when engaged individually or in combination with the other Undisclosed AECDs.

133. FCA US, VM Italy, and VM North America violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing one or more of the Undisclosed AECDs in the Subject Vehicles, or by causing any of the foregoing acts.

134. Each part or component described in Paragraph 132 that was manufactured, sold, offered for sale, or installed on new motor vehicles (or the

causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

135. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), and 40 C.F.R. § 19.4, FCA US, VM Italy, and VM North America are each liable for injunctive relief and civil penalties of up to \$3,750 per part or component described in Paragraph 132 per Subject Vehicle for each violation occurring between January 12, 2009 and November 2, 2015, and up to \$4,527 per part or component described in Paragraph 132 per Subject Vehicle for each violation occurring after November 2, 2015.

#### **IX. THIRD CLAIM FOR RELIEF**

##### **(Section 203(a)(3)(A): Removing or Rendering Inoperative any Devices or Elements of Design installed to Comply with Emission Regulations Prior to the Sale of the Vehicle, or Causing Any of the Foregoing Activities)**

136. The United States realleges paragraphs 1 through 124 above as if fully set forth herein.

137. The Undisclosed AECDs, individually or in combination with the other Undisclosed AECDs, have the effect of removing or rendering inoperative devices or elements of design installed on or in the Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

138. FCA US, VM Italy, and VM North America violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the

Undisclosed AECDs in the Subject Vehicles prior to their sale, thereby removing or rendering inoperative elements of the emission control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

139. Each Subject Vehicle equipped with one or more of the Undisclosed AECDs represents a separate violation by FCA US, VM Italy, and VM North America of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

140. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), and 40 C.F.R. § 19.4, FCA US, VM Italy, and VM North America are each liable for injunctive relief and civil penalties of up to \$37,500 per motor vehicle for each violation occurring between January 12, 2009 and November 2, 2015, and up to \$45,268 per Subject Vehicle for each violation occurring after November 2, 2015.

**X. FOURTH CLAIM FOR RELIEF**  
**(Section 203(a)(2): Reporting Violations)**

141. The United States realleges paragraphs 1 through 124 above as if fully set forth herein.

142. FCA US, FCA NV, VM Italy, and VM North America failed or caused the failure to disclose the existence of the Undisclosed AECDs identified in Paragraph 106 in the COC applications for the Subject Vehicles, information

reasonably required by the Administrator to determine whether FCA US has acted or is acting in compliance with Part A of Title II of the Act.

143. FCA US, FCA NV, VM Italy, and VM North America violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more of the Undisclosed AECDs in COC applications for test groups of new motor vehicles.

144. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

145. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), and 40 C.F.R. § 19.4, FCA US, FCA NV, VM Italy, and VM North America are liable for injunctive relief and civil penalties of up to \$37,500 per day of violation for such violations occurring between January 12, 2009 and November 2, 2015, and up to \$45,268 per day of violation for such violations occurring after November 2, 2015.

## **XI. PRAYER FOR RELIEF**

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin FCA US, FCA NV, VM Italy, and VM North America from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the



foregoing acts with respect to) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin FCA US, FCA NV, VM Italy, and VM North America from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts with respect to) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin FCA US, VM Italy, and VM North America from manufacturing, selling, offering to sell, or installing parts or components intended for use with a motor vehicle or motor vehicle engine (or causing any of the foregoing acts), where a principal effect of such part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle in compliance with regulations promulgated under Title II of the Act.

d. Permanently enjoin FCA US, VM Italy and VM North America from removing or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order FCA US, FCA NV, VM Italy, and VM North America to take appropriate steps to remedy and prevent the violations of Section 203(a)(1) alleged

above, including, but not limited to, mitigation of excess NO<sub>x</sub> emissions from the Subject Vehicles.

f. Order FCA US, VM Italy, and VM North America to take appropriate steps to remedy and prevent the violations of Sections 203(a)(3)(A) and 203(a)(3)(B) alleged above, including, but not limited to, mitigation of excess NO<sub>x</sub> emissions from the Subject Vehicles.

g. Enter a judgment that FCA US, FCA NV, VM Italy, and VM North America are liable to the United States for civil penalties for each violation of Section 203(a) of the Act and assess civil penalties against FCA US, FCA NV, VM Italy, and VM North America as follows:

- i. for violations of Section 203(a)(1) of the Act: up to \$37,500 per Subject Vehicle for each violation occurring between January 12, 2009 and November 2, 2015, and up to \$45,268 per Subject Vehicle for each violation occurring after November 2, 2015; and
- ii. for violations of Section 203(a)(2) of the Act: up to \$37,500 per day of violation for each violation occurring between January 12, 2009 and November 2, 2015, and up to \$45,268 per day of violation for each violation occurring after November 2, 2015.

h. Enter a judgment that FCA US, VM Italy, and VM North America are liable to the United States for civil penalties for each violation of Section 203(a) of

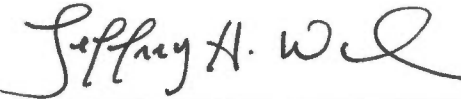
the Act and assess civil penalties against FCA US, VM Italy, and VM North America as follows:

- i. for violations of Section 203(a)(3)(A) of the Act: up to \$37,500 per Subject Vehicle for each violation occurring between January 12, 2009, and November 2, 2015, and up to \$45,268 per Subject Vehicle for each violation occurring after November 2, 2015; and
  - ii. for violations of Section 203(a)(3)(B) of the Act: up to \$3,750 per Subject Vehicle for each violation occurring between January 12, 2009 and November 2, 2015, and up to \$4,527 per Subject Vehicle for each violation occurring after November 2, 2015.
- i. Award the United States its costs in this action; and
  - j. Grant such other and further relief as the Court deems just and proper.

*United States v. FCA US LLC et al.*

Respectfully submitted,

DATE: 5/22/2017



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Acting Assistant Attorney General  
United States Department of Justice  
Environment & Natural Resources Division

*s/ Leigh P. Rendé*

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*United States v. FCA US LLC et al.*

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**CERTIFICATE OF SERVICE**

I hereby certify that on May 23, 2017, I electronically filed the foregoing Complaint with the Clerk of the Court using the ECF system. I hereby certify that I have sent by United States Postal Service and electronic mail the foregoing Complaint to the following attorneys for defendants:

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