CANADA

PROVINCE OF QUEBEC
DISTRICT OF MONTREAL

NO: 500-06-000837-175

(Class Action)
SUPERIOR COURT

_____

GARAGE POIRIER & POIRIER INC.

and

A. BOUFFARD

Petitioners

-vs.-

FCA CANADA INC.

and

FCA US LLC

and

VM MOTORI NORTH AMERICA, INC., legal person duly constituted, having its head office at 1000 Chrysler Drive, City of Auburn Hills, State of Michigan, 48326, USA

and

ROBERT BOSCH INC., legal person duly constituted, having its head office at 6955 Creditview Road, City of Mississauga, Province of Ontario, L5N 1R1

and

ROBERT BOSCH NORTH AMERICA CORPORATION, legal person duly constituted, having its head office at 2800 South 25th Avenue, City of Broadview, State of Illinois, 60155-4594, U.S.A.

and

ROBERT BOSCH LLC, legal person duly constituted, having its head office at 38000 Hills Tech Drive, City of Farmington Hills, State of Michigan, 48331, U.S.A.

Respondents

RE-AMENDED APPLICATION TO AUTHORIZE THE BRINGING OF A CLASS ACTION & TO APPOINT THE PETITIONERS AS REPRESENTATIVES (Art. 574 C.C.P. and following)

TO THE HONOURABLE MADAM JUSTICE MARIE-ANNE PAQUETTE OF THE SUPERIOR COURT, SITTING IN AND FOR THE DISTRICT OF MONTREAL, YOUR PETITIONERS STATE AS FOLLOWS:

I. GENERAL PRESENTATION

A) The Action

1. The Petitioners wish to institute a class action on behalf of the following class, of which they are members, namely:

    - All persons, entities or organizations resident in Quebec who purchased and/or leased one or more of the Subject Vehicles equipped with a Defeat Device, or any other group to be determined by the Court;

2. The "Defeat Device" and/or "Auxiliary Emission Control Device" referred to in this litigation is an illegal software that detects when the vehicle is undergoing emissions testing and switches on the full emissions control systems only during the test – unduly "defeating" or reducing the vehicle's emissions (and exhibiting higher fuel efficiency) under testing conditions; otherwise, at all other times that the vehicle is running, the emissions control systems are shut off;

3. The "Subject Vehicles" means all:

    a) model years 2014 to 2016 Dodge Ram 1500 EcoDiesel vehicles, and
    b) model years 2014 to 2016 Jeep Grand Cherokee EcoDiesel vehicles

    equipped with a 3.0-litre diesel engine;

4. The Petitioners reserve the right to amend the definition and list of "Subject Vehicles" should further discovery reveal that additional models, model-years, and/or model variations are uncovered to be affected;

5. The FCA Respondents design, manufacture, market, distribute, warrant, lease and/or sell the Subject Vehicles as being "EcoDiesel" vehicles capable of passing federal emission standards; however, in fact, they had equipped the Subject

Vehicles with illegal software designed to falsify the vehicles' emissions during emissions testing;

5.1 The VM Motori Respondent designed, manufactured, calibrated, and delivered the EcoDiesel engine system for inclusion in the Subject Vehicles;

5.2 The Bosch Respondents created, designed, developed, manufactured, tested, supplied, and/or sold the Defeat Devices as well as an electronic diesel control (EDC) in order to enable the FCA Respondents to implement the Defeat Devices in the Subject Vehicles;

6. The Petitioners contend that the Respondents failed to disclose the existence of the Defeat Device and that the Subject Vehicles emitted Oxides of Nitrogen ("NO_x") at a much higher level than stated and that they had substantially lower fuel efficiency than stated. In fact, the Respondents actively concealed the existence of the Defeat Device and the fact that their existence would diminish both the intrinsic and the resale value of the Subject Vehicles, as well as, increase the cost of fuel for consumers;

B) The Respondents

I. The FCA Respondents

7. Respondent FCA Canada Inc. (hereinafter, "FCA Canada") is a Canadian corporation with its head office in Windsor, Ontario. It is the current owner of *inter alia* the following trade-marks: "CHRYSLER AND BAND WITHIN SHIELD DESIGN" (NFLD1502), which was registered on July 4, 1927, "DODGE" (UCA29065), which was registered on January 8, 1948, "CHRYSLER" (TMDA56220), which was registered on January 24, 1933, the whole as appears from a copy of an extract from the *Registraire des entreprises* and from copies of said trade-marks from the CIPO trade-mark database, produced herein *en liasse* as **Exhibit R-1**;

8. Respondent FCA US LLC (hereinafter, "FCA US") is an American corporation with its head office in Michigan. It is a motor vehicle engineer, manufacturer and licensed distributor of Chrysler, Dodge, Jeep and Ram motor vehicles. It is the current owner of *inter alia* the following trade-marks:

- "JEEP" (design) (TMA214501), which was registered on June 25, 1976,
- "JEEP" (word) (TMA240978), which was registered on March 14, 1980,
- "GRAND CHEROKEE" (word) (TMA667541), which was registered on July 13, 2006,
- "CHRYSLER IMPERIAL AND SHIELD DESIGN" (NFLD1799), which was registered on August 12, 1930,
- "DODGE & RAM'S HEAD DESIGN" (TMA748793), which was registered on September 28, 2009,
- "RAM" (TMA128585), which was registered on November 2, 1962,

- "RAM'S HEAD DESIGN" (TMA675408), which was registered on October 20, 2006,

The whole as appears more fully from a copy of said trade-marks from the CIPO trade-mark database, produced herein *en liasse* as **Exhibit R-10**;

8.1 Respondents FCA Canada and FCA US (collectively, "FCA") are motor vehicle manufacturers and licensed distributors of Chrysler, Dodge, Jeep, and Ram motor vehicles. The Chrysler brand is one of the "Big Three" in the United States Automotive Industry[1]. As of 2015, FCA is the 7th largest automaker in the world by unit production;

8.2 FCA designed, manufactured, marketed, distributed, warranted, leased and/or sold the Subject Vehicles worldwide, including in Quebec. They installed the EcoDiesel engine systems in the Subject Vehicles and they developed and disseminated the owner's manuals, supplements, and warranty booklets, advertisements, and other promotional material relating to the Subject Vehicles. FCA provided these to its authorized dealerships for the express purpose of having these dealerships pass such materials to consumers at the point of sale. FCA also created, designed, and disseminated information about the quality of the Subject Vehicles to various agents of various publications for the express purpose of having that information reach consumers;

II. VM Motori

8.3 Respondent VM Motori North America, Inc. (hereinafter "VM Motori") is an American corporation with its head office in Auburn Hills, Michigan. VM Motori America designed, manufactured, calibrated, and delivered the EcoDiesel engine system for inclusion in the Subject Vehicles, knowing and intending that the Subject Vehicles, along with their engine system, would be marketed, distributed, warranted, leased and/or sold worldwide, including in Quebec;

III. The Bosch Respondents

8.4 Respondent Robert Bosch Inc. (hereinafter "Bosch Inc.") is a Canadian corporation with its head office in Mississauga, Ontario. It is a subsidiary of Respondent Bosch North America Corporation that conducts business in Canada, including within the province of Quebec, the whole as appears more fully from a copy of an extract from the *Registraire des entreprises*, produced herein as **Exhibit R-18**;

8.5 Respondent Robert Bosch North America Corporation (hereinafter "Bosch North America") is an American corporation with its head office in Broadview, Illinois. It is a parent company of Respondent Bosch Inc.;

[1] When used in relation to the United States automotive industry, the "Big Three" most generally refers to the three major American automotive companies: Respondent FCA US LLC, non-party Ford Motor Company, and non-party General Motors Corporation.

8.6 Respondent Robert Bosch LLC ("Bosch LLC") is an American corporation with its head office in Farmington Hills, Michigan;

8.7 Bosch is divided into four business sectors: Mobility Solutions (formerly Automotive Technology), Industrial Technology, Consumer Goods, and Energy and Building Technology. Bosch holds itself out to the public as having a collective identity, which is captured by Bosch's mission statement: "We are Bosch", a unifying principle that links each entity and person within the Bosch Group. Additionally, Bosch's culture is self-professed to have a "distinctive corporate culture [of a] common bond", the whole as appears more fully from a copy of an extract from the Bosch Respondents' website at www.bosch.com and from a copy of an extract from the Bosch Respondents' website at www.wearebosch.com, produced herein *en liasse* as **Exhibit R-19**;

8.8 Mobility Solutions is the largest Bosch business sector. In 2014, it accounted for 68% of total sales. Bosch is one of the world's largest automotive suppliers, the whole as appears more fully from a copy of an extract from Bosch's 2014 Annual Report, produced herein as **Exhibit R-20**;

8.9 Bosch embeds sales and engineering personnel at customer offices and facilities throughout the world, including automakers like Fiat Chrysler, to work directly on the design, sale, calibration, and configuration of the parts it supplies;

8.10 Bosch developed, tested, configured, manufactured, and supplied the EDC Unit 17, which is the EDC system used in the Subject Vehicles, knowing and intending that the Subject Vehicles, along with the device, would be marketed, distributed, warranted, leased and/or sold worldwide, including in Quebec;

8.11 From at least 2005 to 2015, the Bosch Respondents created, designed, developed, manufactured, tested, supplied, and/or sold illegal defeat devices, which were specifically designed to evade emissions requirements in vehicles including the Subject Vehicles in this case as well as the Dodge Ram 1500 EcoDiesel and Jeep Grand Cherokee EcoDiesel, as well as models manufactured by Volkswagen, Audi, Porsche, General Motors, and Mercedes;

8.12 Bosch participated not just in the development of these devices, but also in the scheme to prevent federal regulators from uncovering their true functionality. Moreover, Bosch's participation was not limited to engineering these devices; in fact, Bosch marketed "clean diesel" technology. Bosch was therefore a knowing and active participant in the scheme or common course of conduct with FCA and VM Motori and others to defraud federal regulators and consumers;

IV. The Respondents' Solidary Liability

9. During the Class Period, the Respondents, either directly or through a parent company, subsidiary, agent or affiliate, designed, manufactured, marketed, advertised, distributed, leased and/or sold or caused to be sold the Subject Vehicles equipped with the Defeat Device throughout Canada, including within the province of Quebec;

10. Given the close ties between the Respondents and considering the preceding, they are all solidarily liable for the acts and omissions of the other;

C) The Situation

i) Diesel Engines – Background

11. A diesel engine is an internal combustion engine in which ignition of fuel is initiated by the high temperature which a gas achieves when it is greatly compressed. In contrast, a regular spark-ignition engine such as a gasoline engine, which ignites fuel using spark plugs;

12. Diesel engines first became popular in North American passenger vehicles in the 1970s and 1980s, but gained a reputation as "dirty" because of their emissions; they emitted noxious gases and particulate matter. As diesel engines need to be more robust than gasoline engines, diesel-powered vehicles also cost more to produce – commanding a premium price. These factors, combined with increasingly stringent emissions regulations caused diesel passenger vehicles to become increasingly unpopular in the market;

13. Thus, in recent decades, fewer diesel engine vehicles have appeared on Canadian roadways. Even though diesel engines can usually provide more torque than gasoline engines, they are also higher polluters and more expensive. Diesel passenger cars thus began to disappear in the 1980s and 1990s, and were all but eliminated in 2004 when the *On-Road Vehicle and Engine Emission Regulations*, SOR/2003-2 (the "*On-Road Vehicle and Engine Emission Regulations*) under the *Canadian Environmental Protection Act, 1999* ("CEPA") aligned with the *Environment Protection Act* in the United States and when the California Air Resources Board (CARB) came into effect, effectively banning their use;

14. The *On-Road Vehicle and Engine Emission Regulations* makes it a violation for any person to sell, manufacture, or install any component in a motor vehicle that "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"[2];

14.1 In June 2012, the World Health Organization declared that diesel vehicle emissions were carcinogenic to humans (Group 1), which is about as dangerous as asbestos, the whole as appears more fully from a copy of International Agency

[2] *On-Road Vehicle and Engine Emission Regulations*, SOR/2003-2, at s. 11.

for Research on Cancer (WHO) Press Release entitled “IARC: Diesel Engine Exhaust Carcinogenic” dated June 12, 2012 and from a copy of the Toronto Star article entitled “Diesel exhaust as cancerous as asbestos, says WHO” dated June 13, 2012, produced herein *en liasse* as **Exhibit R-11**;

14.2 In February 2013, Environment Canada adopted the *Heavy-duty Vehicle and Engine Greenhouse Gas Emission Regulations*, SOR/2013-24 establishing mandatory greenhouse gas emission standards (including NO_x), which are harmonized with the U.S. EPA standards. These regulations apply to heavy-duty vehicles of the 2014 and later model years;

14.3 Diesel engines pose a particularly difficult challenge to the environment because they have an inherent compromise between power, fuel efficiency, and emissions – the greater the power and fuel efficiency, the “dirtier” and more harmful the emissions become. Compared to gasoline engines, diesel engines generally produce greater power, low-end power, better drivability, and much higher fuel efficiency. But these benefits come at the cost of much more harmful emissions than gasoline vehicles;

14.4 Instead of using a spark plug to combust highly-refined fuel with short hydrocarbon chains (as gasoline engines do), diesel engines compress a mist of liquid fuel and air to very high temperatures and pressures, which causes the diesel to spontaneously combust. This causes a more powerful compression of the pistons, which produces greater engine torque (that is, more power);

14.5 The diesel engine is able to do this both because it operates at a higher compression ratio than a gasoline engine and because diesel fuel contains more energy than gasoline does;

ii) <u>The Emissions Situation</u>

15. One important by-product of a diesel combustion engine is NOx, which is comprised of nitrogen and oxygen atoms. NOx is formed primarily from the liberation of nitrogen contained in fuel and nitrogen contained in combustion air during combustion processes. Nitrogen Oxide (NO) emitted during combustion quickly oxidizes to Nitrogen Dioxide (NO_2) when released into the atmosphere. NO_2 dissolves in water vapour in the air to form acids, and interacts with other gases and particles in the air to form particles known as nitrates and other products that may be harmful to people and the environment. These compounds develop inside the cylinder of the engine during the high temperature combustion process;

16. NOx are a highly reactive group of gases that Environment Canada and other government agencies have found to create environmental problems and public health hazards, including smog, ground-level ozone, and acid rain. For example, direct exposure to NOx can cause respiratory problems, such as lung irritation, bronchitis, or pneumonia. When NOx combines with sunlight, it may create

photochemical smog, which appears as a brownish ground-level haze and causes chest pains, shortness of breath, coughing and wheezing, and eye irritation. NOx is one of the main ingredients involved in the formation of ground-level ozone. Breathing ozone can also trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion and can worsen bronchitis, emphysema, and asthma. Children are at the greatest risk of experiencing negative health impacts from exposure to ozone. When mixed with rain in the atmosphere, NOx can create nitric acid or acid rain. NOx is also a contributor to global warming, the whole as appears more fully from a copy of an extract from Environment Canada's website at www.ec.gc.ca, produced herein as **Exhibit R-12**;

17. Because of the potential for considerable environmental pollution, the diesel engine market is one characterized by stringent governmental regulations regarding allowable pollutants, including exhaust emissions levels of Oxides of Nitrogen ("NOx"), Non-Methane Hydrocarbons ("NMHC"), Non-Methane Hydrocarbon Equivalent, Carbon Monoxide and Particulate Matter;

18. In Canada, emissions from motor vehicles are regulated by Environment Canada under CEPA, which applies to new and/or used vehicles imported into Canada or to vehicles shipped inter-provincially;

19. Increasingly, the general approach to setting vehicle emissions standards in Canada is to harmonize them with the federal United States Environmental Protection Agency ("EPA") standards as much as possible. On January 1, 2004, Environment Canada enacted the *On-Road Vehicle and Engine Emission Regulations*, the purpose of which was to reduce emissions and to "establish emission standards and test procedures for on-road vehicles that are aligned with those of the EPA" for "vehicles and engines that are manufactured in Canada, or imported into Canada, on or after January 1, 2004"[3]. Every model of vehicle or engine that is certified by the U.S. EPA and that is sold concurrently in Canada and in the United States, is required to meet the same emission standards in Canada as in the United States, the whole as appears more fully from a copy of the DieselNet article entitled "Emission Standards: Canada", produced herein as **Exhibit R-2**;

20. More specifically, the CEPA emission standards strictly regulate exhaust emissions, including oxides of nitrogen (NO_x). This effectively banned the sale of diesel passenger vehicles in Canada because the nature of diesel engines inherently makes NOx emissions a particularly difficult problem to resolve;

21. Because of the serious hazards created by NO_x emissions, the CEPA, in alignment with both the U.S. EPA and CARB, have regulated NO_x;

21.1 Seeing a major opportunity for growth, almost all of the major automobile manufacturers rushed to develop "clean diesel" and promoted new diesel vehicles

[3] *On-Road Vehicle and Engine Emission Regulations*; ss. 2 & 3.

as environmentally friendly and clean. Vehicle manufacturers such as Volkswagen, Mercedes, General Motors, FCA and others began selling diesel vehicles as more powerful, yet also as an environmentally friendly alternative to gasoline vehicles. And the marketing seemed to work, as millions of diesel vehicles were purchased between 2007 and 2016;

iii) The Diesel Scandal

21.2 On September 18, 2015, the "Volkswagen Emissions Scandal" erupted, when the United States Environmental Protection Agency (US EPA) issued a notice of violation of the Clean Air Act to the Volkswagen Group after it was discovered that Volkswagen had intentionally programmed turbocharged direct injection (TDI) diesel engines to activate certain emissions controls only during laboratory emissions testing. The programming caused the vehicles' NOx output to meet environmental standards during regulatory testing, but to emit up to 40 times more NOx in real-world driving. Volkswagen deployed this programming in about eleven million cars worldwide, during model years 2009 through 2015, the whole as appears more fully from a copy of the U.S. EPA Notice of Violation dated September 18, 2015, produced herein as **Exhibit R-21**;

21.3 A defeat device, as defined by the U.S. EPA, is any apparatus that unduly reduces the effectiveness of emissions control systems under conditions a vehicle may reasonably be expected to experience. The U.S. EPA found that the Volkswagen/Audi defeat device allowed the vehicles to pass emissions testing while in the real world these vehicles polluted far in excess of emissions standards;

21.4 In September 2015 and again in November 2015, Volkswagen and Audi admitted using defeat device software to activate emissions controls when diesel cars were being smog tested and deactivate those controls during normal, on-road driving. Volkswagen pled guilty to criminal charges and settled civil class actions for over ten billion dollars", the whole as appears from a copy of the Forbes article entitled "Audi Admits 2.1 Million Vehicles Are Also Fitted With Emissions Cheat Software" dated September 28, 2015, from a copy of the Financial Times article entitled "VW admits second illegal device in 85,000 Audi engines" dated November 23, 2015, and from a copy of the USA Today article entitled "Volkswagen emission scandal widens: 11 million cars affected" dated September 22, 2015, produced herein *en liasse* as **Exhibit R-22**;

21.5 The U.S. EPA as well as other government agencies began to look for defeat devices in other vehicles that were actually exceeding emissions standards. It was revealed that dozens of vehicle models were affected and on January 12, 2017, the U.S. EPA issued a Notice of Violation to Fiat Chrysler America for cheating on its emissions certificates with respect to its Dodge Ram and Jeep Grand Cherokee vehicles. On May 23, 2017, the United States filed a civil suit against Fiat Chrysler alleging violations of the Clean Air Act (Exhibits R-6 and R-16);

21.6 At the core of the diesel scandal are the Bosch Respondents who were active and knowing participants in the scheme to evade emissions regulations. Bosch created, designed, developed, manufactured, and tested the electronic diesel control (EDC) that allowed FCA to implement the Defeat Devices into the Subject Vehicles;

iv) The Bosch EDC-17, VM Motori, and the Bosch Respondents

21.7 The Subject Vehicles use engine management computers to monitor sensors throughout the vehicle and operate nearly all of the vehicle's systems according to sophisticated programming that can sense and vary factors like steering, combustion, and emissions performance for different driving situations. To manage engine and emission controls, the Subject Vehicles use a Bosch EDC system. The Bosch Respondents designed, tested, customized, manufactured, and sold these EDC systems, including software code, to FCA (along with other automakers including Volkswagen, Mercedes, General Motors, and Ford) for use in the Subject Vehicles;

21.8 The system used in the Subject Vehicles is Bosch's EDC Unit 17 (also referred to as EDC-17 and EDC17). The Bosch EDC-17 is a good enabler for manufacturers to employ defeat devices as it enables the software to detect conditions when emissions controls can be detected – i.e., conditions outside of the emissions test cycle. Almost all of the vehicles found or alleged to have been manipulating emissions in the United States (Mercedes, Fiat Chrysler America, Volkswagen, Chevy Cruze) use a Bosch defeat device, the whole as appears more fully from a copy of the Checksumm article entitled "New Bosch EDC17 Engine Management System" dated August 17, 2006 and from a copy of the Quantum Tuning article entitled "Bosch EDC-17 Remap", produced herein *en liasse* as **Exhibit R-23**;

21.9 All modern engines are integrated with sophisticated computer components to manage the vehicle's operation, such as an EDC. The Bosch Respondents tested, manufactured, supplied, and/or sold the EDC system employed by Volkswagen, Mercedes, General Motors, and Ford;

21.10 Upon its introduction, EDC-17 was publicly touted by the Bosch Respondents as follows:

> EDC17 . . . controls every parameter that is important for effective, low-emission combustion.
>
> EDC17: Ready for future demands
> Because the computing power and functional scope of the new EDC17 can be adapted to match particular requirements, it can be used very flexibly in any vehicle segment on all the world's markets. In addition to controlling the precise timing and quantity of injection, exhaust gas recirculation, and manifold pressure regulation, it also offers a large

number of options such as the control of particulate filters or systems for reducing nitrogen oxides. The Bosch EDC17 determines the injection parameters for each cylinder, making specific adaptations if necessary. This improves the precision of injection throughout the vehicle's entire service life. The system therefore makes an important contribution to observing future exhaust gas emission limits. (Exhibit R-23);

21.11 Bosch's EDC-17 controls emissions by periodically reading sensor values, evaluating a control function, and controlling actuators based on the control signal. Sensor readings include crankshaft position, air pressure, air temperature, air mass, fuel temperature, oil temperature, coolant temperature, vehicle speed, exhaust oxygen content, as well as driver inputs such as accelerator pedal position, brake pedal position, cruise control setting, and selected gear, the whole as appears more fully from a copy of the report entitled "How They Did It: An Analysis of Emission Defeat Devices in Modern Automobiles" undated, produced herein as **Exhibit R-24**;

21.12 In 2010 or 2011, non-party VM Motori S.p.A (VM's Motori's parent company based in Italy, hereinafter "VM Italy") announced a new diesel engine: a V6, 3.0-litre displacement engine intended for inclusion in SUVs, trucks, and large sedans. This engine had originally been under development for use in GM automobiles in the European market; however, GM went into bankruptcy in 2009. In 2011, Fiat acquired 50% of VM Italy in 2011 and on October 28, 2013, Fiat acquired the remaining 50% stake of VM Italy from GM, the whole as appears more fully from a copy of the Fiat and GM Press Release entitled "Fiat Powertrain Purchases Penske Corporations's Fifty-Percent Stake in VM Motori VM Motori to be co-owned by GM and Fiat Powertrain" dated February 11, 2011, from a copy of the Reuters article entitled "Italy's Fiat to take full control of VM Motori" dated September 21, 2013, and from a copy of the Automotive News article entitled "Fiat buys remainder of diesel maker VM Motori from GM" dated October 28, 2013, produced herein *en liasse* as **Exhibit R-25**;

21.13 Fiat thereafter began working with VM Motori to develop the engine for use in FCA vehicles to be sold in North America. As Ram Trucks' Chief Engineer said at the time, "We were fortunate at this point in time that our partners at Fiat owned half of VM Motori, who makes this diesel engine. . . .We combined resources and developed them together", the whole as appears more fully from a copy of the Engine Labs article entitled "An Inside Look At The Ram 1500 3.0L EcoDiesel" dated January 11, 2015, produced herein as **Exhibit R-26**;

21.14 119. According to its website, VM Motori is deeply involved in the development and testing of all aspects of the engine: "We take care of the engines and their applications, working together with the Customers to the least detail to ensure a perfect matching between the engine and the machine, supporting our partners from A to Z, from engine- to-machine coupling up to the production", the whole as

appears more fully from a copy of an extract from VM Motori's website at www.vmmotori.com, produced herein as **Exhibit R-27**;

21.15 In fact, VM Motori boasts of its involvement in: "Calibration development to meet specific vehicle/end user requirements, Exhaust after-treatment system development, [and] Environmental trips (hot/cold climate, high altitude, etc.)." VM Motori also notes that its facilities include: "Rolling dyne for vehicle emission measurement [and] 17 engine test benches for emission/performance development" (Exhibit R-27);

21.16 The engine originally was developed for use in Europe, where standards for emission of oxides of nitrogen from diesel vehicles are less stringent than in North America. Rather than make the engine compliant with applicable emissions standards, FCA opted to cheat on the emission test;

21.17 In January 2013, Bosch LLC announced that its "clean diesel" technology, including the EDC-17, would be featured in the new 2014 Jeep Grand Cherokee 3.0-Litre EcoDiesel®. As part of that announcement, Bosch LLC stated: "The 2014 Jeep Grand Cherokee features a Bosch emission system compliant with the most stringent emission regulations in the world. From fuel tank to tailpipe, Bosch is pleased to equip this vehicle with top technologies to give consumers a great driving experience requiring fewer stops at the pump." Bosch LLC also announced that the "clean diesel" system for the Jeep Grand Cherokee would be assembled at Bosch's facility in Kentwood, Michigan, the whole as appears more fully from a copy of Bosch LLC's Press Release entitled "Bosch Announces Clean Diesel Technology On 2014 Jeep Grand Cherokee" dated January 24, 2013, produced herein as **Exhibit R-28**;

21.18 In reality, FCA, working with VM Motori on the design of the EcoDiesel's engines and Bosch on the design of the EDC-17, was either unable or unwilling to devise a solution within the constraints of the law. And so, much like their rivals at Volkswagen, they devised one outside of it instead. Instead of cutting their losses on "EcoDiesel", necessitating a delay the production of the Subject Vehicles, or being honest, FCA worked closely with VM Motori and Bosch to customize the EDC-17 to enable the Subject Vehicles to simulate "passing" the emissions testing. Unlike during testing, the software disables or restricts certain of the emission controls during real-world driving conditions. When the emission controls are de-activated on the road, the Subject Vehicles emit up to 20 times the legal limits of NO_x;

21.19 In other words, with respect to the Subject Vehicles, EDC-17 was enabled by Bosch, VM Motori, and FCA to surreptitiously evade emissions regulations. The Bosch and FCA Respondents worked together to develop and to implement a specific set of software algorithms for implementation in the Subject Vehicles, which enabled FCA to adjust fuel levels, exhaust gas recirculation (EGR), air pressure levels, and even urea injection rates (for applicable vehicles), the whole

as appears more fully from a copy of an extract from the Bosch Respondents' website at de.bosch-automotive.com, produced herein as **Exhibit R-29**;

21.20 A study published by researchers at the University of California, San Diego, and Ruhr-Universität Bochum in Germany revealed technical documents showing that Bosch code was used in a so-called defeat device for a Fiat vehicle. The study described the software as setting one mode for when a vehicle is being tested for emissions, but then allowing tailpipe pollution to spike in real-world driving conditions. The study described Bosch's role in building the electronic control unit ("ECU") hardware and developing the software running on the ECU and found there was "no evidence that automobile manufacturers write any of the code running on the ECU." To the contrary: "All code we analyzed in this work was documented in documents copyrighted by Bosch and identified automakers as the intended customers". The study concluded: "We find strong evidence that both defeat devices were created by Bosch and then enabled by Volkswagen and Fiat for their respective vehicles", the whole as appears more fully from a copy of a Bloomberg article entitled "Study of VW's Cheating on Diesels Examines Role of Bosch Code" dated June 9, 2017, produced herein as **Exhibit R-30**;

21.21 FCA's illegal strategy was enabled by its close partnership with Bosch, which enjoyed a sizable portion of its annual revenue from manufacturing parts used in FCA's and other manufacturers' diesel vehicles, the whole as appears more fully from a copy of the Automotive News article entitled "Bosch probes whether its staff helped VW's emissions rigging" dated January 27, 2016, produced herein as **Exhibit R-31**;

21.22 The same level of coordination that occurred between Bosch and Volkswagen went on between Bosch, FCA, and VM Motori. Bosch worked closely with FCA and VM Motori to create specifications and software code for each Subject Vehicle model. Indeed, customizing a road-ready ECU is an intensive three to five-year endeavour involving a full-time Bosch presence at an automaker's facility. VM Motori likewise worked closely with Bosch and FCA in designing, installing, and calibrating the engines for the Subject Vehicles;

21.23 Bosch was well aware that FCA was using its emissions control components as a defeat device and, in fact, worked with FCA and VM Motori to develop the software algorithm specifically tailored for the Subject Vehicles;

21.24 All Bosch EDCs, including the EDC-17, run on complex, highly proprietary engine management software over which Bosch exerts near-total control. The software is typically locked to prevent customers, like FCA, from making significant changes on their own. Accordingly, both the design and implementation are interactive processes, requiring Bosch's close collaboration with the automaker from beginning to end;

21.25 Bosch's security measures further confirm that its customers cannot make significant changes to Bosch software without Bosch's involvement. Bosch boasts

that its security modules protect vehicle systems against unauthorized access in every operating phase, meaning that no alteration could have been made without either a breach of that security – and no such claims have been advanced – or Bosch's knowing participation, the whole as appears more fully from a copy of the Escrypt article entitled "Reliable Protection for ECUs" dated December 5, 2016, produced herein as **Exhibit R-32**;

21.26 It is therefore unsurprising that at least one car company engineer has confirmed that Bosch maintains absolute control over its software as part of its regular business practices:

> I've had many arguments with Bosch, and they certainly own the dataset software and let their customers tune the curves. Before each dataset is released it goes back to Bosch for its own validation.
>
> Bosch is involved in all the development we ever do. They insist on being present at all our physical tests and they log all their own data, so someone somewhere at Bosch will have known what was going on.
>
> All software routines have to go through the software verification of Bosch, and they have hundreds of milestones of verification, that's the structure…
>
> The car company is *never* entitled by Bosch to do something on their own.

The whole as appears more fully from a copy of the Car and Driver article entitled "EPA Investigating Bosch over VW Diesel Cheater Software" dated November 23, 2015, produced herein as **Exhibit R-33**;

21.27 The development of the EDC-17 reflected a highly unusual degree of coordination among the Respondents. As they did with Volkswagen, the units required the work of numerous Bosch coders for a period of over ten years. Although Bosch publicly introduced the EDC-17 in 2006, it had clearly started to develop the engine management system years before;

21.28 Because Bosch was concerned about getting caught in the scheme to enable diesel emissions cheating, in 2007, Bosch warned Volkswagen by letter that using the emission-altering software in production vehicles would constitute an "offense." Yet, Bosch concealed the software, and its emission control functions, in various "clean" diesel vehicles, including the Subject Vehicles, from federal regulators and consumers, the whole as appears more fully from a copy of the Automotive News article entitled "Bosch warned VW about illegal software use in diesel cars, report says" dated September 25, 2015 and from a copy of the BBC article entitled "VW scandal: Company warned over test cheating years ago" dated September 27, 2015, produced herein *en liasse* as **Exhibit R-34**;

21.29 Bosch participated not only in the development of the defeat devices, but in the scheme to prevent regulators from uncovering the device's true functionality. Moreover, Bosch's participation was not limited to engineering the defeat device but also in marketing "Clean Diesel" and lobbying U.S. regulators to approve "Clean Diesel," a highly unusual activity for a mere supplier, the whole as appears more fully from a copy of the Automotive News article entitled "Bosch boosts US diesel lobbying" dated March 8, 2004 and from a copy of the Bosch Press Release entitled "Bosch: Clean Diesel is Key Part of Future Technology Mix" dated October 2008, produced herein *en liasse* as **Exhibit R-35**;

21.30 Bosch hosted multi-day conferences open to regulators and legislators and held private meetings with regulators, in which it proclaimed extensive knowledge of the "clean" diesel technology, including the calibrations necessary for the vehicles to comply with emission regulations, the whole as appears more fully from a copy of an extract from the website www.californiadieseldays.com, produced herein as **Exhibit R-36**;

21.31 Bosch also joined in events promoting the Subject Vehicles. At one such event hosted by Ram, Jeep and Bosch in Traverse City, Michigan, Bosch made a number of statements regarding the 3.0-litre EcoDiesel V6's performance. It stated that the "Bosch emissions control system helps ensure that virtually no particulates and minimal oxides of nitrogen (NOx) exit the tailpipe" and that a Jeep Grand Cherokee or Ram 1500 diesel's engine provides a fuel economy that is "30% better than a comparable gasoline engine", the whole as appears more fully from a copy of an extract from FCA's website at blog.fcanorthamerica.com entitled "EcoDiesel: An Essential Tool For Every Outdoorsman" dated May 22, 2015, produced herein as **Exhibit R-37**;

21.32 In 2009, Bosch also became a founding member of the U.S. Coalition for Advanced Diesel Cars. One of this advocacy group's purposes included "promoting the energy efficiency and environmental benefits of advanced clean diesel technology for passenger vehicles in the U.S. marketplace." This group lobbies Congress, U.S. regulators, and CARB in connection with rules affecting "clean diesel" technology, the whole as appears more fully from a copy of the Automotive News article entitled "New Coalition aims to promote diesel cars" dated February 2, 2009, produced herein as **Exhibit R-38**;

v) (…) Diesel Engines and Emissions Testing

22. Facing the implementation of stringent federal regulations, the FCA Respondents designed, manufactured, marketed, advertised, distributed, leased and/or sold the Subject Vehicles which were designed to, and did, mislead consumers and regulators about their emissions;

22.1 The use of the Defeat Devices to mislead consumers and regulators was made possible by the Bosch Respondents who created, designed, developed,

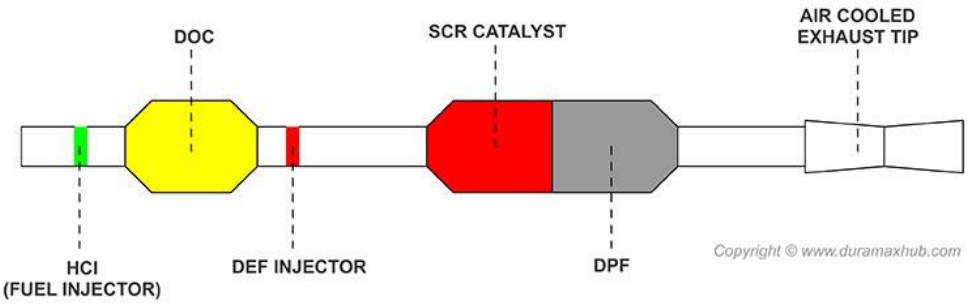
manufactured, marketed, tested, supplied, and/or sold the Defeat Devices and the electronic diesel control (EDC), which enable their operation;

- Diesel Engines in General

22.2 The main components of a diesel engine are:

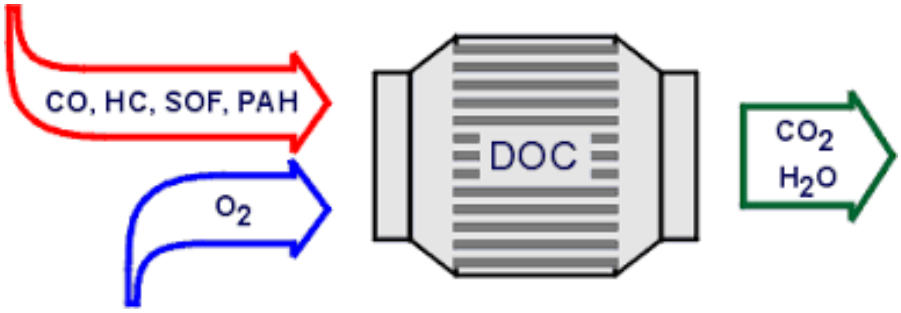
(a) The Hydrocarbon Injector (HCI)

22.3 The hydrocarbon injector (HCI) is located in the turbocharger downpipe. It is simply a fuel injector used to inject diesel fuel into the exhaust stream during active regeneration (cleaning of the diesel particulate filter). This active regeneration strategy is unique as the previous version allowed fuel to be injected into the cylinder during the exhaust stroke instead of utilizing a separate injector. The following diagram depicts the HCI in addition to the other components of the Power Stroke engine that are described hereinafter:



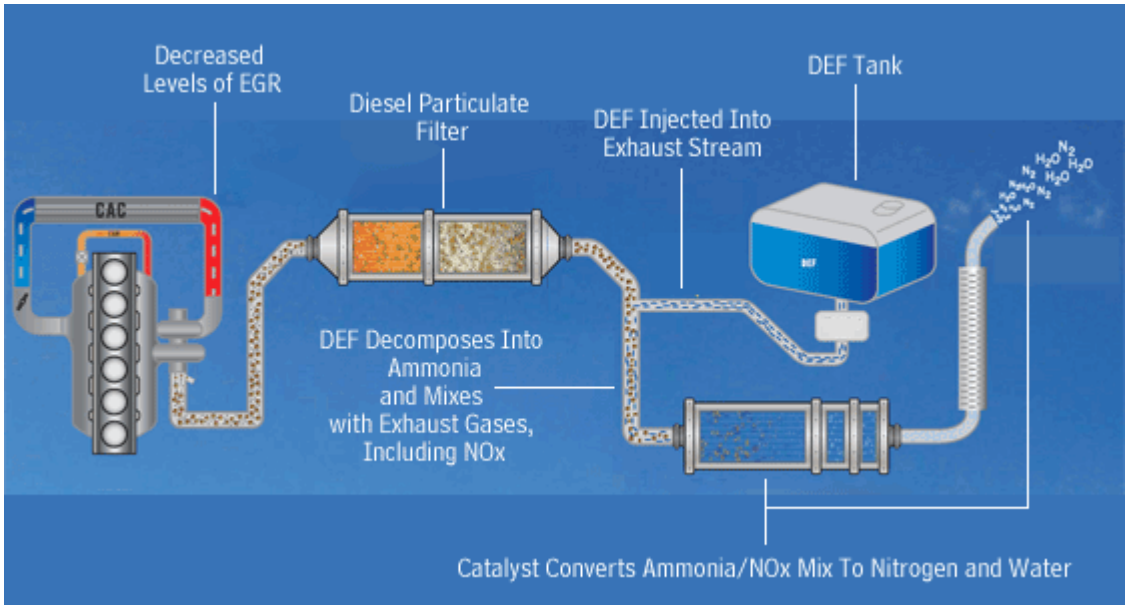
(b) Diesel Oxidation Catalyst (DOC)

22.4 The diesel oxidation catalyst (DOC) converts hydrocarbons and carbon monoxide into water and carbon dioxide through an oxidization reaction. The DOC also converts nitric oxide to nitrogen dioxide to generate favourable conditions for the reduction of NO_x in the SCR system downstream of the DOC. Finally, the DOC oxidizes fuel injected from the HCI to generate the temperatures required for active regeneration;



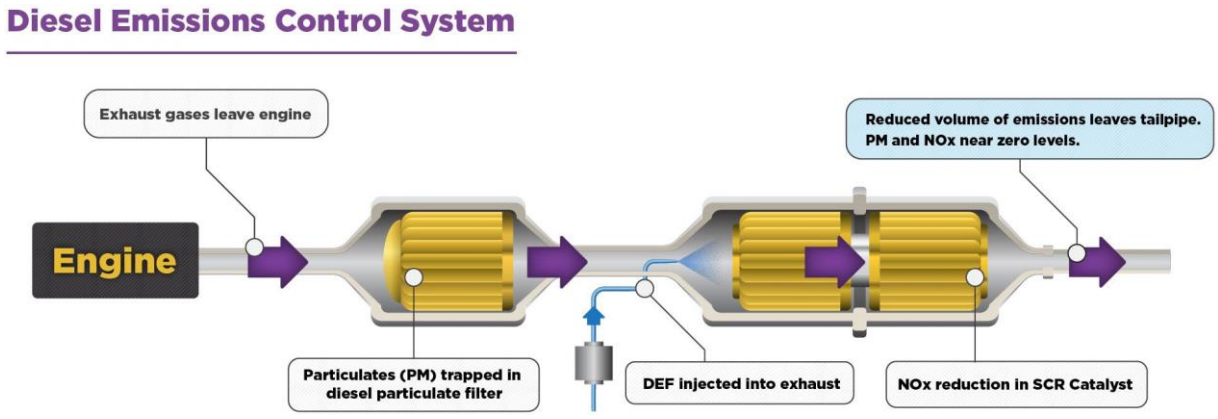
(c) Diesel Exhaust Fluid Injector (DEF)

22.5 The diesel exhaust fluid (DEF) is injected downstream of the DOC. DEF is composed of 32.5% urea (its active ingredient), distilled water, and a very small amount of additives. Because of its urea content, some people call the process "urea injection." DEF is required for the selective catalytic reduction process to occur. The heat of the exhaust converts the DEF into carbon dioxide and ammonia;



(d) Selective Catalytic Reduction (SCR)

22.6 Once DEF is added to the exhaust, it travels through the selective catalytic reduction (SCR) catalyst. Here, oxides of nitrogen (NO_x) are converted to nitrogen gas (N2) and water (H2O) by means of a reduction reaction. The SCR system significantly reduces NO_x emissions, reducing the frequency of active regeneration cycles and allowing for more freedom in the calibration of the engine. The drawback of SCR is its increased complexity and the need to carry and replenish the urea fluid;



(e) Diesel Particulate Filter (DPF)

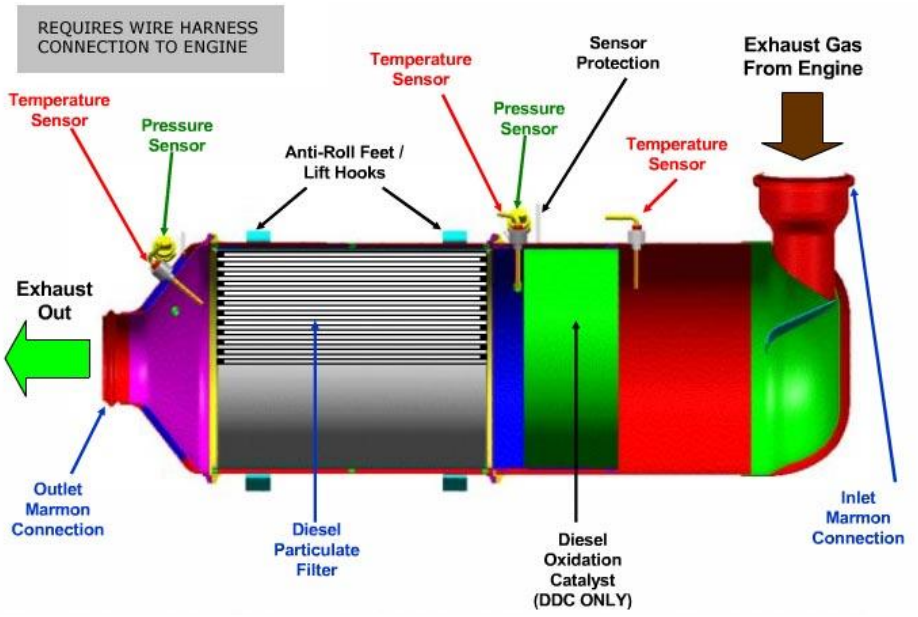
22.7 After the exhaust stream has been treated by the DOC and SCR, it travels through the diesel particulate filter (DPF), where particulate matter (soot) is trapped and stored. The DPF is cleaned through a process known as regeneration, which is divided into 2 methods; passive and active:

- Passive regeneration occurs at any time that the vehicle is in operation and the exhaust gas temperature is high enough to burn the particulate matter trapped by the filter. It is a continuously occurring process, meaning that it naturally occurs whenever the conditions are met,

- Active regeneration occurs only when the engine senses that the DPF requires cleaning, such as when the DPF is approaching maximum capacity and generating too much exhaust backpressure. When active regeneration occurs, fuel is injected into the exhaust stream via the HCI to increase the exhaust gas temperature so that the particulate matter can be burned off at carbon's non-catalytic oxidation temperature. Active regeneration dramatically reduces fuel economy since fuel is being used for purposes other than driving the vehicle;

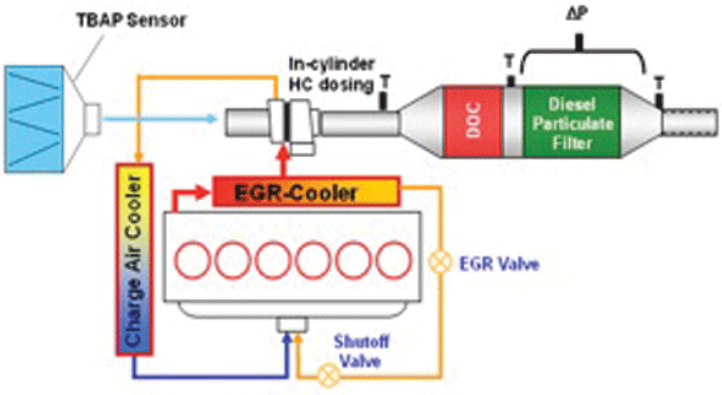
22.8 The exhaust system features a specifically designed air-cooled exhaust tip to reduce the heat of the exhaust gases as they are expelled. While the DPF is highly effective at trapping particulates, as the amount of particulates accumulates, the resistance to air flow increases also, increasing the load of the engine. To purge the DPF of accumulated deposits, it must undergo a regeneration cycle approximately every 500 km, lasting about 30 minutes. DPF regeneration requires high exhaust temperatures of approximately 600°C that are almost never achieved under normal engine operating conditions. Unfortunately, these conditions may not arise in normal urban driving, requiring the electronic control unit to perform active regeneration;

22.9 During active regeneration, the electronic control unit adjusts engine operation to increase exhaust temperature to regenerate the DPF; however, if the vehicle is only driven for short distances, such a temperature may never be reached. At sufficiently high soot load, the vehicle will illuminate a special warning lamp, prompting the driver to drive the vehicle at increased speed to allow active regeneration to take place. Thus, while the DPF is highly effective at reducing particulate emissions, it imposes a performance penalty and can become a hassle for owners who drive their vehicle for short distances;



(f) Exhaust Gas Recirculation (EGR)

22.10 Exhaust gas recirculation (EGR) is used to reduce NOx emissions. Since oxides of nitrogen form in oxygen rich, high temperature environments, introducing exhaust gases back into the intake air charge reduces the amount of these compounds that form. Exhaust gas recirculation is not a new technology and has been regularly used on diesel engines for many years;



- Emissions Testing

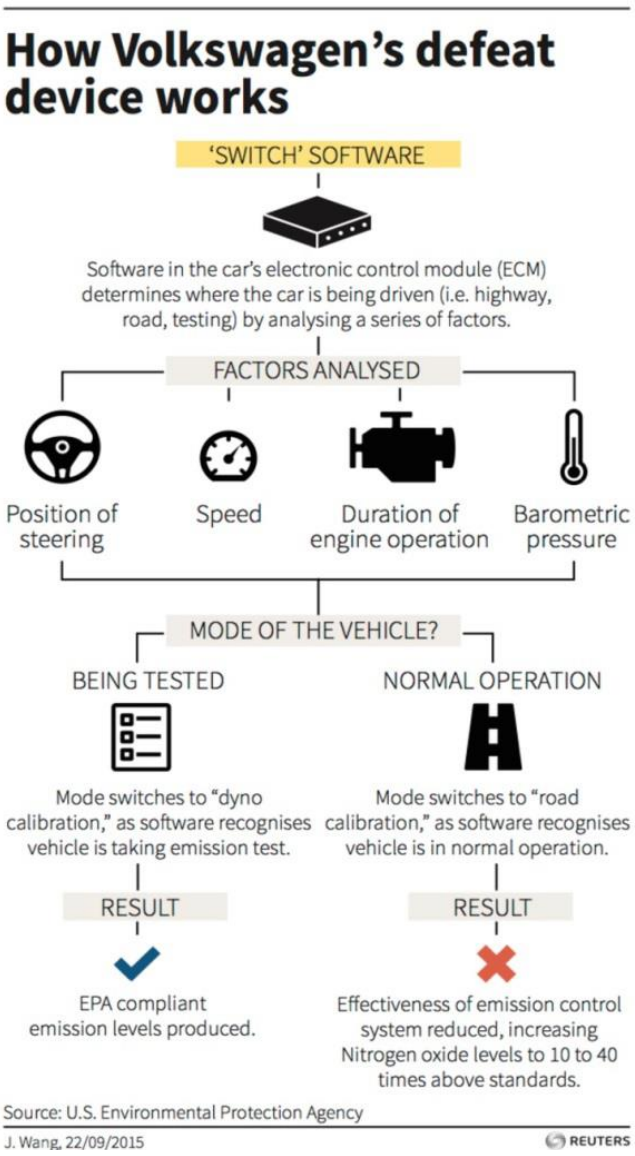
22.11 An emissions test cycle defines a protocol that enables repeatable and comparable measurements of exhaust emissions in order to evaluate compliance. The protocol specifies all conditions under which the engine is tested, including lab temperature and vehicle conditions. Most importantly, the test cycle defines the speed and load over time that is used to simulate a typical driving scenario;

22.12 Both Canadian and U.S. federal emission standards for vehicles and engines are closely aligned, the whole as appears more fully from a copy of an extract from the Registrar of Imported Vehicles' website at www.riv.ca, from a copy of an extract from Environment and Climate Change Canada's website at www.ec.gc.ca entitled "Workplan for General Areas of Collaboration On Vehicle and Engine Emission Control Under the Agreement Between the Government of the United States of America and the Government of Canada on Air Quality", and from a copy of the Canadian Council of Ministers of the Environment's Environmental Code of Practice for On-Road Heavy-Duty Vehicle Emission Inspection and Maintenance Programs dated 2003, produced herein *en liasse* as **Exhibit R-39**;

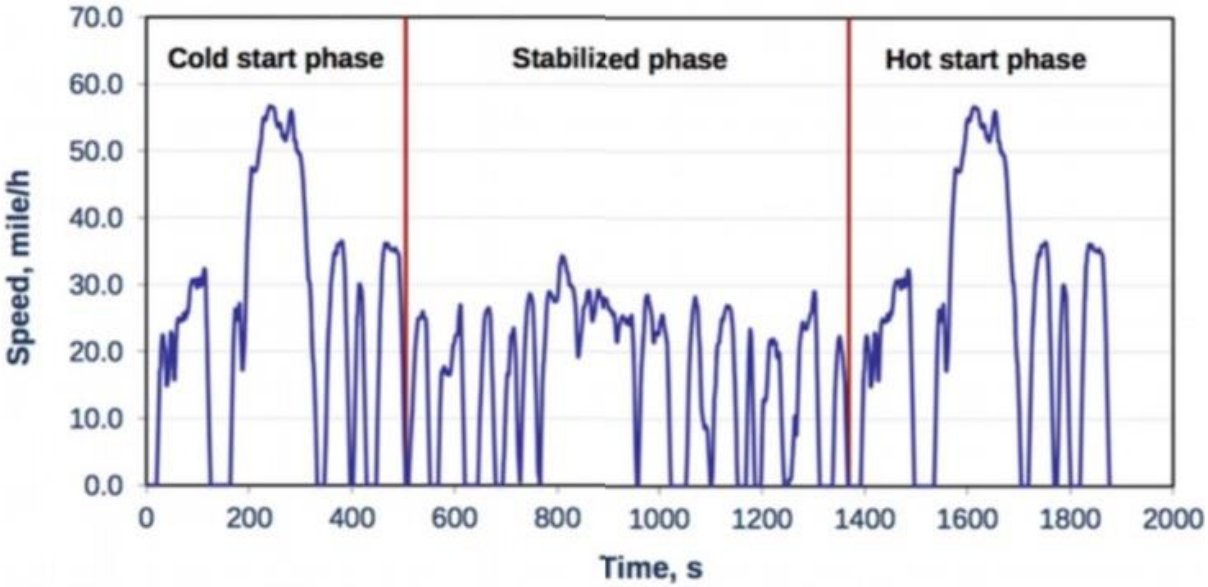
22.13 In Canada, Ottawa is responsible for the testing of new vehicles; however, it is the provinces' responsibility to identify polluting vehicles after they are on the road. Ontario is the only province with mandatory emissions testing for vehicles, the whole as appears more fully from a copy of The Globe and Mail article entitled "The problem with car emissions tests" dated September 24, 2015, produced herein as **Exhibit R-40**;

21.33 When carmakers test their vehicles against emission standards, they place their cars on dynamometers (large rollers) and then perform a series of specific manoeuvres prescribed by federal regulations. Bosch's EDC-17 gave Volkswagen, FCA, and other manufacturers the power to detect test scenarios by monitoring vehicle speed, acceleration, engine operation, air pressure, and even the position of the steering wheel. When the EDC-17's detection algorithm detected that the vehicle was on a dynamometer (and undergoing an emission test), additional software code within the EDC-17 downgraded the engine's power and performance and upgraded the emissions control systems' performance by switching to a "dyno calibration" to cause a subsequent reduction in emissions to legal levels. Once the EDC-17 detected that the emission test was complete, the EDC Unit would then enable a different "road calibration" that caused the engine to return to full power while reducing the emissions control systems' performance, and consequently caused the vehicle to spew the full amount of illegal NOx emissions out on the road, the whole as appears more fully from a copy of the BBC News article entitled "Volkswagen: The scandal explained" dated December 10, 2015, produced herein as **Exhibit R-41**;

21.34 This process is illustrated in the following diagram, which is applicable to FCA as well:



22.14 An example of a driving cycle is depicted below. This graph represents the FTP-75 (U.S. Federal Test Procedure, which is equally used in Canada) cycle that has been created by the U.S. EPA and is used for emission certification and fuel economy testing of light-duty vehicles. This particular cycle simulates an urban route with frequent stops, combined with both a cold and a hot start transient phase. The cycle lasts 1,877 seconds (about 31 minutes) and covers a distance of 17.77 km (11.04 miles) at an average speed of 34.12 km/h (21.2 mph):



22.15 Besides urban test cycles such as FTP-75, there are also cycles that simulate driving patterns under different conditions. To assess conformity, several of these tests are carried out on a chassis dynamometer, a fixture that holds a car in place while allowing its drive wheel to turn with varying resistance. Emissions are measured during the test and compared to an emissions standard that defines the maximum pollutant levels that can be released during such a test, the whole as appears more fully from a copy of the DieselNet article entitled "Emission Test Cycles", produced herein as **Exhibit R-42**;

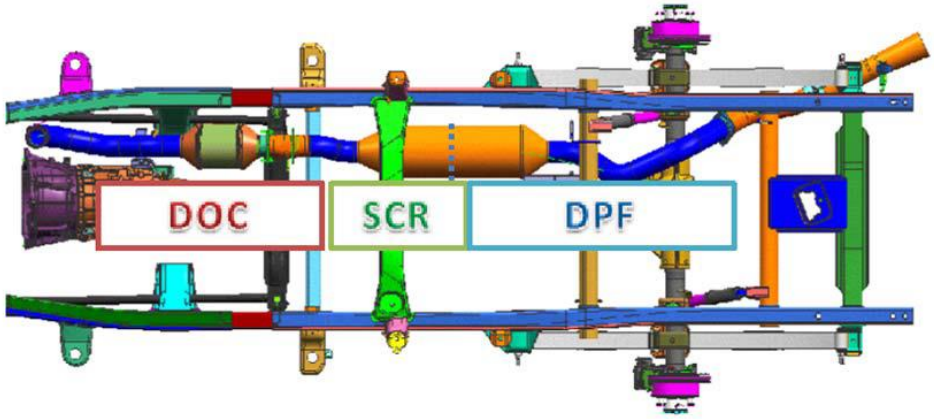
22.16 The FTP-75 is the primary dynamometer cycle used to certify the light- and medium-duty passenger cars/trucks. This cycle is primarily a dynamic cycle, with rapid changes in speed and acceleration meant to reflect city driving along with some steadier higher speed sections meant to account for some highway driving;

22.17 The FTP-75 uses a "cold start" cycle. That means the vehicle starts the cycle with the engine having been off for at least eight hours and in a completely cold state. The "cold start" portion of the test is challenging for diesel engines employing SCR because catalysts meant to control emissions are not yet at temperatures where they work (i.e., above their "light-off" temperature);

22.18 As mentioned in the above section, in order for the SCR to be effective at reducing NOx emissions, it requires hot exhaust for the urea catalyst to function properly. Thus, the system takes some time to warm up and does not work well when the engine system is cold; the DPF absorbs much of the heat during exhaust warmup and delays the time for the SCR catalyst to reach its light-off temperature;

22.19 Emissions testing requires a cold start emissions measurement; i.e. the vehicles must emit low levels of NOx even when they have just started and are not yet operating at a high temperature. The Respondents did not want to increase Engine

Gas Recirculation (EGR) or use other inefficient methods to reduce "cold start" emissions, so they departed from the DOC–DPF–SCR order that other manufacturers use and designed its Power Stroke engines with the SCR system closer to the engine than the DPF. In the Power Stroke, the order is instead as follows:



22.20 This arrangement allows the SCR system to warm up quicker, thus allowing sufficiently reduced NO_x emissions to pass the cold start test; however, there is a drawback. Because the NO_x is reduced before the exhaust reaches the DPF filter, there is little Passive Regeneration in the DPF. This, in turn, requires more active regenerations, resulting in reduced fuel economy, reduced lifetime of the SCR catalysts, and a significant increase in overall NO_x emissions;

vi) "EcoDiesel" and the Respondents' Defeat Devices

22.21 As part of an overall strategy to expand its North American presence, in 2009, Fiat began its acquisition of one of the "Big 3" U.S. automakers, Chrysler. In November of that year, CEO Marchionne unveiled an ambitious five-year plan to, among other things, roll out "more diesel variants" under the Jeep brand and to give Ram's "Light duty (1500)" pickup truck a "refresh/facelift", the whole as appears more fully from a copy of the Motor Trend article entitled "CEO Sergio Marchionne and Co. Outline Future Strategy" dated November 6, 2009, produced herein as **Exhibit R-43**;

22.22 By 2014, Fiat had become Fiat Chrysler Automobiles, Chrysler had become FCA, and VM Motori, its long-time supplier, became part of the Fiat Chrysler expansive family of affiliated companies. In May of that year, Marchionne announced a new five-year plan to increase FCA's competitiveness against global auto giants, such as Toyota, Volkswagen, and General Motors, by increasing annual sales to 7 million vehicles by 2018, up from 4.4 million in 2013. Integral to the strategy was the expansion of the "Jeep portfolio" and updates to the "bread-and-butter Ram 1500," including "diesel engines", the whole as appears more fully from a copy of Los Angeles Times article entitled "Fiat Chrysler unveils aggressive

five-year plan" dated May 6, 2014 and from a copy of the Motor Trend article entitled "RAM and Ferrari's Place in Fiat Chrysler's Five-Year Plan" dated May 6, 2014, produced herein *en liasse* as **Exhibit R-44**;

23. FCA decided to push into the market beyond its existing heavy-duty diesel trucks (which use engines from a different supplier, Cummins) and debuting for the 2014 model year, the Respondents introduced their "EcoDiesel" trucks (the brand alone suggesting an environmental quality that was utterly lacking) and they leased and/or sold the Subject Vehicles that produced emissions level that were far higher than advertised, intentionally concealing the truth through a sophisticated scheme involving the fraudulent Defeat Devices;

24. The Defeat Device at issue uses an algorithm to detect when Subject Vehicles were being operated on dynamometers, such as is used in smog testing facilities and by federal regulators when determining compliance with emissions standards. When the Defeat Device detects that the vehicle is undergoing emissions testing, it engages full emissions controls, which allows the Subject Vehicles to pass stringent standards for NO_x emissions[4]. During on-road driving, however, these same cars emit 10 to 40 times the legal limits for NO_x because the emission controls were turned off;

24.0.1 In connection with the U.S. litigation (Exhibit R-9), engineering experts in emissions testing have tested the 2015 Ram 1500 pickup using a Portable Emissions Measurement System (PEMS)[5]. Testing revealed that the Respondents had cheated in that they had concealed the fact that the Ram 1500 spews more than the legal amount of emissions and fails to meet its own "no NO_x" out-of-the-tailpipe promise;

24.0.2 The applicable federal standard is 80 mg/km (50 mg/mile) of NO_x for city driving. Testing was conducted with a PEMS unit to simulate driving conditions under both city conditions and highway conditions. The Ram 1500 emits an average of 254mg/km (159 mg/mile) of NO_x and a maximum of 2,052mg/km (1,283 mg/mile) on flat roads, and 355mg/km (222 mg/mile) of NO_x with a maximum of 2,974mg/km (1,859 mg/mile) on hills. For highway driving, the average was 371mg/km (232 mg/mile) and a maximum of 2584mg/km (1,615 mg/mile), compared to the 112mg/km standard. On hills, the numbers are 565mg/km (353 mg/mile) and 5184mg/km (3,240 mg/mile);

24.0.3 Testing also revealed a device triggered by ambient temperature that significantly derates (lowers) the performance of the NO_x emission reduction system, with ambient threshold temperatures above approximately 35ºC (95ºF) and below 4-10ºC (40-50ºF). The resulting NO_x emissions increase by a factor of

[4] Nitrogen dioxide and nitric oxide are referred to together as oxides of nitrogen (NO_x).

[5] A portable emissions measurement system (PEMS) is essentially a lightweight 'laboratory' that is used to test and/or assess mobile source emissions (i.e. cars, trucks, buses, construction equipment, generators, trains, cranes, etc.) for the purposes of compliance, regulation, or decision-making.

10 when above or below these threshold temperatures. Testing also revealed the presence of a device that is triggered when ascending hills, as the emission control system appears to be significantly derated after a short period of steady driving on hills. As a result, NO_x emissions increase after about 500-1000 seconds on hills with grades as low as 1%, where emissions are often 10 times the highway standard. For grades as little as 0.4%, emissions were found to be as high as 6 times the highway standard;

24.0.4 The Ram 1500's emission software is a Bosch EDC-17, as is the Jeep Grand Cherokee's emission software. The same basic emission system is in the Grand Cherokee EcoDiesel and the engines are identical;

24.0.4 In separate testing by counsel for the plaintiffs in the U.S. litigation (Exhibit R-9), a 2014 Ram 1500 equipped with an EcoDiesel® engine and featuring SCR NO_x after-treatment technology was tested on a chassis dynamometer as well as on the road. In both scenarios, gaseous exhaust emissions, including oxides of nitrogen (NO_x), nitrogen oxide (NO), carbon monoxide (CO), carbon dioxide (CO2), and total hydrocarbons (THC) were measured on a continuous basis using a PEMS;

24.0.5 The tests showed significantly increased NO_x emissions during on-road testing as opposed to testing on a chassis dynamometer (i.e., in the laboratory). On the road, over an urban/suburban route, the vehicle produced average NO_x emissions that exceeded federal standards by approximately 15-19 times;

vii) The Respondents' Marketing

24.1 In order to counter the public perception that diesel engines produce dirty emissions and to capitalize on consumers' desire to protect the environment, FCA aggressively markets the EcoDiesel engine as being environmentally friendly, using a leaf and green colouring in its logo, as is depicted below:

24.2 In fact, the central theme in FCA's diesel engine marketing is the promise of "clean" diesel (Exhibit R-37);

25. For years, the Respondents marketed its diesel vehicles as fuel efficient trucks with low emissions, for example they have made the following non-exhaustive representations:

(a) 3.0L Jeep Grand Cherokee EcoDiesel V6

The 3.0L EcoDiesel V6 is a three-time winner of Ward's '10 Best Engine' and delivers 240 horsepower and 420 lb-ft of torque. This diesel engine gives the Jeep® Grand Cherokee a Best-in-Class towing capacity of up to 3,265 kg (7,200 lb).

You'll also enjoy savings with fuel economy as efficient as 8.4 L/100 km (34 mpg) highway, and a driving range up to 1,100 km that no other SUV in its class can match.

2016 Jeep Grand Cherokee EcoDiesel: Best-in-Class fuel economy

City
11.2 L/100KM
25 IMP. MPG

Highway
8.4 L/100KM
34 IMP. MPG

Yearly Fuel Cost $2,227
Up to $565 Savings

(b) 3.0L Dodge Ram 1500 EcoDiesel

Canada’s Most Fuel-Efficient Full-Size Pickup

Legendary durability and capability combine with advanced features like the Class-Exclusive 3.0L EcoDiesel V6 to give you Canada's most fuel-efficient full-size pickup ever, winner of Four Wheeler’s 2016 Pickup Truck of the Year and the 2016 Canadian Truck King Challenge winner. The available EcoDiesel engine dominates with Best-in-Class 420 lb-ft of low-end torque and makes the Ram 1500 the only half-ton pickup in the industry to offer a diesel engine.

(i) 3.0L EcoDiesel V6

A true benchmark, the Class-Exclusive 3.0L EcoDiesel V6 delivers 240 horsepower and Class-Leading 420 lb-ft of low-end torque at an impressive 2,000 rpm. If you want diesel power, you can forget the competition. The Ram 1500 is the only half-ton truck in the industry to offer a diesel engine.

The 3.0L EcoDiesel engine also delivers Best-in-Class fuel economy as efficient as 8.0 L/100 km (35 mpg) highway and has recommend oil change intervals of up to 16,000 km to lower your total operating costs. No matter how you look at it, this engine dominates across the performance spectrum - which is why Wards named it one of their ‘10 Best Engines’ two years in a row.

Transmission(s)

Mated to the 3.0L EcoDiesel is a TorqueFlite® 8-speed automatic transmission. With 40 different shift maps, it optimizes the engine's performance, giving you stronger power when needed and fuel economy that makes the Ram 1500 Canada's most fuel-efficient full-size pickup.

2016 RAM 1500
Best-in-Class fuel economy that dominates the competition

CANADA’S MOST FUEL-EFFICIENT FULL-SIZE PICKUP AS EFFICIENT AS 35 MPG (8.0L/100 KM) HIGHWAY

The dominating performance of the 3.0L EcoDiesel V6 runs deep. Not only is it Class-Exclusive, but it also puts an impressive 420 lb-ft of low-end torque in your hands along with exhilarating power. This massive capability is balanced by Best-in-Class fuel economy thanks to a Segment-First 8-speed automatic transmission. The Ram 1500 is the complete package, which is why it beat all competitors to become the back-to-back winner of the Canadian Truck King Challenge,

(ii) 3.0L EcoDiesel V6 (HFE Model)

City
11.3 L/100KM
25 IMP. MPG

Highway
8.0 L/100KM
35 IMP. MPG

Estimated fuel cost with EcoDiesel:

$2,199 Yearly Fuel Cost

Up to $676 in Savings,

The whole as appears more fully from copies of various extracts from the Respondents' website(s) as well as copies of various vehicle brochures from 2014 to 2016, produced herein *en liasse* as **Exhibit R-3**;

25.1 In its EcoDiesel advertising, FCA specifically targets consumers "who want to drive an efficient, environmentally friendly truck without sacrificing capability or performance." Indeed, it claims that the Ram 1500 was "the NAFTA market's first and only light-duty pickup powered by clean diesel technology", the whole as appears more fully from a copy of an extract from the FCA Respondents' website at blog.ramtrucks.com, produced herein as **Exhibit R-45**;

25.2 FCA further claims that "the Bosch emissions control system helps ensure that virtually no particulates and minimal oxides of nitrogen (NOx) exit the tailpipe" (Exhibit R-37);

25.3 FCA goes so far as to hold itself out as a protector of the environment: "We are in a race against time. Climate change and the increasing scarcity of traditional sources of energy require new approaches to mobility. Fiat Group is addressing this challenge head-on by ensuring individual freedom of movement with maximum consideration for the environment and local communities." Step one, according to FCA, is to "minimize environmental impacts related to the use of our products", the whole as appears more fully from a copy of the FCA Respondents' 2014 Sustainability Report, produced herein as **Exhibit R-46**;

26. The 2016 Dodge Ram 1500 EcoDiesel vehicle repeatedly won the Canadian Truck King Challenge, the whole as appears more fully from a copy of an extract from the Respondents' website, produced herein as **Exhibit R-4**

27. The Respondents' success is attributed, at least in part, to the promotion of their diesel trucks as "Eco", implying that they are ecologically-friendly vehicles, when in

fact, this was simply a false and misleading marketing tactic employed to increase sales;

27.1 FCA's marketing of its Subject Vehicles and their "EcoDiesel" engines has consistently been to promise clean diesel;

28. Instead of delivering on their promises of high performance coupled with low or compliant emissions, the Respondents devised a way to make it appear that their vehicles did what they said they would when, in fact, they did not. Simply put, the Respondents lied to consumers and regulators alike and continued to lie over many years;

viii) Claims of Fuel Economy/ Efficiency

29. Diesel engines, as opposed to gasoline engines, pose a difficult challenge to the environment because they have an inherent trade-off between power, fuel efficiency, and emissions. Compared to gasoline engines, diesel engines generally produce greater torque, low-end power, better drivability, and much higher fuel efficiency. But these performance benefits come at the cost of much more harmful emissions;

30. A vehicle's advertised fuel economy is determined by driving a vehicle over many standardized driving patterns (or drive cycles), all of which are performed in a laboratory on a dynamometer where the conditions for all tests can be controlled. These driving cycles include cold starts, hot starts, highway driving, aggressive and high-speed driving, driving with the air conditioner in use under conditions similar to a hot summer day and driving in cold temperatures. Data from the drive cycles are combined and adjusted for "real world" conditions in a way to represent "City" driving and "Highway" driving. The "combined" fuel economy is the average of the City and Highway values with weights of 55% and 45% respectively, the whole as appears more fully from a copy of an extract from the book "Assessment of Fuel Economy Technologies for Light-Duty Vehicles – Chapter 2, dated 2011, produced herein as **Exhibit R-5**;

31. During each of the drive cycles – all of which are performed in a lab, under the Subject Vehicles' low power/low emissions/low fuel consumption mode – the amount of each pollutant is measured. This includes un-combusted or partially combusted gasoline (hydrocarbons or HC), NO_x, oxygen, carbon monoxide (CO) and carbon dioxide (CO_2). The amount of carbon produced is then converted to amount of gasoline which was required to produce the carbon in the exhaust. The amount of gasoline produced during the tests is divided into the distance driven on the test to produce the fuel economy;

32. Based on this equation, as the amount of NO_x produced increases, the gasoline used increases and the fuel economy decreases. Therefore, if a Subject Vehicle produced less NOx during laboratory testing, but higher NOx when driven on road,

then the vehicle would have better estimated fuel efficiency than the vehicle would actually achieve on road;

33. The Respondents misstated the NO_x emissions as well as the gas consumption of the Subject Vehicles significantly (see Exhibit R-3). Their statements of the estimated fuel efficiency and number of grams of carbon dioxide emitted per kilometre driven by the vehicle were grossly exaggerated due to the use of the Defeat Device. The FCA Respondents make specific representations as to the fuel efficiency of each Subject Vehicle as can be seen at Exhibit R-3;

33.1 FCA promises that the EcoDiesel vehicles provide greater fuel economy, "30% better than a comparable gasoline engine…A Jeep Grand Cherokee or Ram 1500 with the EcoDiesel V-6 has a driving range of about 730 miles on one tank of fuel", the whole as appears more fully from a copy of an extract from the Respondents' website at https://blog.fcanorthamerica.com, produced herein as **Exhibit R-13**;

33.2 FCA's website claimed that the Ram 1500 engine delivers the highest fuel economy among all full-size truck competitors – 12% higher than the next-closest competitor. On the Jeep Grand Cherokee, it offers fuel economy of 30 miles per gallon highway with a driving range of more than 730 miles"; however, its own scandal began to emerge, it removed that representation from its website, the whole as appears more fully from copies of two extracts from the Respondents' website at www.fcanorthamerica.com, produced herein *en liasse* as **Exhibit R-14**;

33.3 FCA further claims that the 2014 Ram 1500 "exceeds the EPA highway rating for the top-ranked small pickup. The breakthrough results mean Ram keeps the half-ton fuel-economy record set last year by the 2013 Ram 1500", the whole as appears more fully from a copy of the Respondents Press Release entitled "2014 Ram 1500 EcoDiesel Orders Top More Than 8,000 Units in Three Days, Filling Initial Allocation" dated February 19, 2014, produced herein as **Exhibit R-15**;

33.4 FCA's advertising has been effective. According to one press release, "[i]t's every truck manufacturer's dream to have this kind of initial order demand for a product. Fuel economy is the No. 1 request of half-ton buyers and the Ram 1500 EcoDiesel delivers without compromising capability" (Exhibit R-15);

ix) The Investigation(s)

34. The Defeat Device technology was brought to light after the U.S. EPA expanded its vehicle testing to look for so-called defeat devices in September 2015 following a similar scandal at Volkswagen. The U.S. EPA as well as other government agencies began to look for defeat devices in other vehicles that were actually exceeding emissions standards. It was revealed that dozens of vehicle models were affected and on January 12, 2017, the U.S. EPA issued a Notice of Violation to Respondent FCA US and its parent company because it had cheated on its emissions certificates with respect to its Dodge Ram and Jeep Grand Cherokee

vehicles, the whole as appears more fully from a copy of the United States Environmental Protection Agency – Notice of Violation dated January 12, 2017, produced herein as **Exhibit R-6**;

35. On January 12, 2017, the U.S. EPA officially accused the Respondents of having installed Defeat Devices in the Subject Vehicles that allowed the trucks to emit far more pollutants into the air than the law allows (Exhibit R-6);

36. Because of this software, the Subject Vehicles appear to meet emissions standards while actually emitting NO_x in far greater amounts than the standard allowed under the federal regulations during the normal operation of the vehicles on the road;

36.1 The U.S. EPA identified at least the following eight concealed Defeat Devices in the Subject Vehicles:

(1) Full EGR Shut-Off at Highway Speed
(2) Reduced EGR with Increasing Vehicle Speed
(3) EGR Shut-off for Exhaust Valve Cleaning
(4) DEF Dosing Disablement during SCR Adaptation
(5) EGR Reduction due to Modeled Engine Temperature
(6) SCR Catalyst Warm-Up Disablement
(7) Alternative SCR Dosing Modes
(8) Use of Load Governor to Delay Ammonia Refill of SCR Catalyst

36.2 The U.S. EPA testing found that "some of these [Defeat Devices] appear to cause the vehicle to perform differently when the vehicle is being tested for compliance with the EPA emission standards using the Federal emission test procedure (e.g., FTP, US06) than in normal operation and use." The U.S. EPA cited the following by way of example:

- Combined operation of AECD # 3 with AECD # 7 or AECD # 8 reduces in certain situations the effectiveness of the overall emission control system by disabling one key component of that system, the EGR system. without compensating by increasing the effectiveness of the other critical component, the SCR system. AECD # 3 employs a timer to shut-off EGR: this EGR disablement docs not appear justified for protecting the vehicle, nor does it meet any of the other exceptions or the defeat device regulatory definition. Under certain conditions reasonably expected to be encountered in normal vehicle operation and use, the SCR is unable to compensate for the reduced effectiveness caused by EGR shut-off and the overall effectiveness of the emission control system is reduced.

- The operation of AECD #5. together with AECD #6, at temperatures outside of those found in the Federal emission test procedure reduces the effectiveness of the NOx emission control system under conditions reasonably expected to be encountered in normal vehicle operation and use. In addition. a timer is used to discontinue warming of the SCR aftertreatment

system. thereby reducing its effectiveness, in a manner that does not appear to be justified to protect the vehicle.

- The operation of AECD #4, particularly when combined with AECD #8, increases emissions of tailpipe NOx under conditions reasonably expected to be encountered in normal vehicle operation and use. The operation of AECD # 1, AECD #2 and/or AECD #5 increase the frequency of occurrence of AECD #4.

- The operation of AECDs #7 and #8, particularly in variable grade and high load conditions, increases emissions of tailpipe NOx under conditions reasonably expected to be encountered in normal vehicle operation and use;

37. Specifically, the U.S. EPA determined that the Respondents failed to disclose the existence of the Defeat Devices in the Subject Vehicles and that the Defeat Devices are present in approximately 103,828 motor vehicles in the U.S. as identified in the following table:

Model Year	**EPA Test Group**	**Make and Model(s)**	**50 State Volume**
2014	ECRXT03.05PV	FCA Dodge Ram 1500	14,083
2014	ECRXT03.05PV	FCA Jeep Grand Cherokee	14,652
2015	ECRXT03.05PV	FCA Dodge Ram 1500	31,984
2015	ECRXT03.05PV	FCA Jeep Grand Cherokee	8,421
2016	ECRXT03.05PV	FCA Dodge Ram 1500	32,319 (projected)
2016	ECRXT03.05PV	FCA Jeep Grand Cherokee	2,469 (projected)

38. A spokesperson for Environment and Climate Change Canada has stated that the department's enforcement branch is "'carefully evaluating the information released by the U.S. EPA to determine its relevance in Canada, and if an investigation is warranted into potential violations'" of CEPA, the whole as appears more fully from a copy of the CBC News article entitled "U.S. alleges Fiat Chrysler cheated on diesel engine emissions" dated January 12, 2017, produced herein as **Exhibit R-7**;

38.1 On May 23, 2017, the United States (on behalf of the U.S. EPA) filed a civil suit against Respondent FCA US and 3 other related entities alleging violations of the *Clean Air Act*, 42 U.S.C and its implementing regulations. On June 7, 2017, it was transferred to the Multidistrict Litigation of In Re: Chrysler-Dodge-Jeep EcoDiesel Marketing, Sales Practices and Products Liability Litigation, the whole as appears more fully from a copy of the U.S. Complaint (2:17-cv-11633-JCO-EAS) dated May 23, 2017 and from a copy of the Conditional Transfer Order dated June 7, 2017, produced herein *en liasse* as **Exhibit R-16**;

39. The Respondents' sales figures in Canada for 2016 indicate that approximately 39,000 Subject Vehicles were sold in that year alone (Exhibit R-7);

39.1 In 2015, researchers at the West Virginia University Center for Alternative Fuels, Engines, and Emissions – the same researchers instrumental in uncovering the Volkswagen Defeat Device – tested five model year 2014 and 2015 vehicles produced by the FCA Respondents. The test vehicles comprised the Subject Vehicles at issue here: Jeep Grand Cherokees and Ram 1500 diesel vehicles, all equipped with the 3.0L EcoDiesel engine, and featuring SCR NOx after-treatment technology, the whole as appears more fully from a copy of the report entitled "On-Road and Chassis Dynamometer Testing of Light-Duty Diesel Passenger Cars" undated, produced herein as **Exhibit R-47**;

39.2 Results indicated that both the 2014 Jeep Grand Cherokee and Ram 1500 exhibited significantly increased NOx emissions during on-road operation as compared to the results observed through testing on the chassis dynamometer. For the 2015, Jeep vehicles produced from 4 to 8 times more NOx emissions during urban/rural on-road operation than the certification standard, while Ram 1500 vehicles emitted approximately 25 times the NOx permitted for highway driving conditions;

39.3 The FCA and Bosch Respondents are also both being investigated by German regulators. In May 2017, Bosch GmbH's Stuttgart offices were raided by German prosecutors, the whole as appears more fully from a copy of the Reuters article entitled "Stuttgart prosecutor targets Bosch in Daimler diesel investigation" dated May 26, 2017, produced herein as **Exhibit R-48**;

39.4 Reportedly, Bosch GmbH representatives met with Germany's Federal Motor Transport Authority ("KBA") whereby, Bosch informed on FCA. The KBA's takeaway from its meetings with Bosch was there is a defeat device in the vehicles and Bosch shared responsibility for the defeat device with FCA. Media reports have confirmed the same, the whole as appears more fully from a copy of the Jalopnik article entitled "Here's How Fiat Might Also Be Cheating On Emissions Tests: Report" dated April 25, 2016 and from a copy of the Reuter's article entitled "Test of Fiat diesel model shows irregular emissions: Bild am Sonntag" dated April 24, 2016, produced herein *en liasse* as **Exhibit R-49**;

39.5 After the meeting with Bosch, the KBA performed testing on the Fiat diesel vehicles and confirmed that the emission controls were disabled after 22 minutes of driving time, causing the vehicles to emit more than 10 times the legal limit of NOx. The KBA concluded that the vehicles were designed to cheat on emission tests, which normally run for about 20 minutes (Exhibit R-49). As a result, the KBA's transport minister announced: "We will need to carry out further tests on Fiat models." (Exhibit R-49) In August 2016, the German government formally concluded that Fiat vehicles sold in the EU had used defeat devices;

39.6 A peer-reviewed study by researchers at the University of California, San Diego and Ruhr-Universität Bochum in Germany analyzed firmware in the EDC Unit 17 of the Fiat 500X and found a defeat device affecting the logic governing NOx storage catalyst regeneration. (Exhibit R-24) Unlike the Volkswagen defeat device,

the researchers found that the mechanism in the Fiat 500X relied on timing, reducing the frequency of NSC approximately 26 minutes and 40 seconds after the engine was started. (By reducing the frequency of NOx storage catalyst regeneration, a manufacturer can improve fuel economy and increase the service life of the diesel particulate filter, at the cost of increased NOx emissions);

39.7 According to the study, the conditions used to determine when to regenerate the NOx storage catalyst (NSC) were duplicated, and each set of conditions could start a regeneration cycle. The researchers obtained Bosch copy-righted documentation for a Fiat vehicle, which described two sets of conditions using the terms "during homologation cycle" and "during real driving."[6]. Bosch's authorship of the document and use of the terms "homologation [testing]" and "real driving" to describe the regeneration conditions demonstrate that it not only created the mechanism in the Subject Vehicles, but was also aware of the mechanism's intended purpose of circumventing emission testing;

x) Summative Remarks

40. The Respondents were well aware that emissions and fuel consumption were significant factors for customers making vehicle purchase decisions – the misrepresentations regarding these two factors was designed to influence customers to purchase their Subject Vehicles based on false information;

41. Because of the Respondents' actions, the vehicles that were sold to the Petitioners and the Class are not what they had promised. During normal operation, the Subject Vehicles pollute the atmosphere with much higher levels of NO_x than the artificially-manipulated test results disclose or than are permitted by federal and environmental protection laws. Meanwhile, when the engine and transmission are operated in a manner that actually limits pollution to legal levels, the Subject Vehicles cannot deliver the performance that the Respondents advertise;

41.1 FCA would not have been able to achieve the promised fuel economy and/or towing power for the Subject Vehicles without having deactivated or having reduced the emission control system during real-world driving conditions. If and when FCA does recall the Subject Vehicles and/or provides a "fix" to bring them into compliance with federal standards, which will result in decreased engine performance, the Petitioners and Class members will be required to spend additional sums of money on fuel and will not retain the promised towing power. Subject Vehicles will also necessarily be worth less in the marketplace because of their decreased performance and efficiency and increased wear on their engines;

41.2 Taken together, the above facts reveal that the Respondents have intentionally concealed the functions of its emission control technology from regulators and consumers alike. Further, they demonstrate that the FCA Respondents' claims

[6] The term "homologation" is commonly used in Europe to describe the process of testing an automobile for regulatory conformance.

about their EcoDiesel Subject Vehicles as “clean diesel” with “ultralow emissions” and “no NOx” emitted through the tailpipe is false and/or misleading;

42. As a result of the Respondents’ surreptitious use of the Defeat Device to downplay the NO_x emissions and to exaggerate the fuel economy of the Subject Vehicles owners and/or lessees of the Subject Vehicles have suffered damages upon which they are entitled to claim;

II. FACTS GIVING RISE TO INDIVIDUAL ACTIONS BY THE PETITIONERS

(a) Petitioner Garage Poirier

43. On March 31, 2015, Petitioner Garage Poirier purchased a used 2014 Dodge Ram 1500 Laramie Longhorn EcoDiesel pick-up truck (VIN 1C6RR7WM4ES352033) from Trois Diamants Autos (1987) Ltée at 3035 Chemin Gascon, in Mascouche, Quebec for a purchase price of $46,000.00 plus taxes, the whole as appears more fully from a copy of the sales contract dated March 31, 2015, produced herein as **Exhibit R-8**;

44. Petitioner Garage Poirier purchased the Subject Vehicle after visiting the Respondents’ website(s) based on its advertised fuel economy and based on its appearance and it assumed that it met all federal regulations;

45. At the time, the Respondents represented that the vehicle had a fuel consumption of 12.1 litres per 100 kilometres in city driving and 8.0 litres per 100 kilometres on the highway;

46. Petitioner Garage Poirier noticed that its vehicle was consuming more fuel than was represented and that the fuel consumption was much higher than it would have expected given the Respondents’ representations relating to the vehicle’s fuel efficiency;

47. Petitioner Garage Poirier has become aware of the news stories about this Defeat Device that the Respondents had installed in his Subject Vehicle and also noticed that several class actions were filed in the United States due to this same issue, as appears from copies of several of the U.S. Class Action Complaints and from a copy of the Amended Consolidated Consumer Class Action Complaint, produced herein, *en liasse*, as **Exhibit R-9**;

47.1 Since the institution of the U.S. Class Action Complaints (Exhibit R-9) as well as the U.S. EPA Complaint (Exhibit R-6), the United States Judicial Panel on Multidistrict Litigation has transferred them to the Northern District of California under the supervision of the Honourable Judge Chen under MDL No. 2777 and a Second Amended Class Action Complaint has been filed, the whole as appears more fully from a copy of the Second Amended Class Action Complaint in In Re Chrysler-Dodge-Jeep EcoDiesel Marketing, Sales Practices, and Products Liability dated May 16, 2017, produced herein as **Exhibit R-17**;

48. Petitioner Garage Poirier has suffered ascertainable loss as a result of the Respondents' omissions and/or misrepresentations associated with the Defeat Device, including, but not limited to, overpayment for the Subject Vehicles, past, present, and future excessive gasoline charges, reduced resale value, and trouble and inconvenience;

49. Had Petitioner Garage Poirier known about the Defeat Device, it would not have purchased the Subject Vehicle or would not have paid such a price;

(b) Petitioner Bouffard

50. In May of 2016, Petitioner Bouffard purchased a used 2016 Dodge Ram 1500 Outdoorsman EcoDiesel pick-up truck from Blainville Chrysler at 249 Boulevard de la Seigneurie West, in Blainville, Quebec for a purchase price of $44,500.00 plus taxes;

51. Petitioner Bouffard purchased the Subject Vehicle based on its advertised fuel economy, torque, and power as advertised on the Respondents website(s) and he assumed that it met all federal regulations;

52. At the time, the Respondents represented that the vehicle had a fuel consumption of 11.6 litres per 100 kilometres in city driving and 8.4 litres per 100 kilometres on the highway;

53. Petitioner Bouffard noticed that his vehicle was consuming more fuel than; much higher than he would have expected given the Respondents' representations relating to the vehicle's fuel efficiency;

54. Petitioner Bouffard has become aware of the news stories about this Defeat Device that the Respondents had installed in his Subject Vehicle and also noticed that several class actions were filed in the United States due to this same issue (Exhibit R-9);

55. Petitioner Bouffard has suffered ascertainable loss as a result of the Respondents' omissions and/or misrepresentations associated with the Defeat Device, including, but not limited to, overpayment for the Subject Vehicles, past, present, and future excessive gasoline charges, reduced resale value, and trouble and inconvenience;

56. Had Petitioner Bouffard known about the Defeat Device, he would not have purchased the Subject Vehicle or would not have paid such a price;

57. Both Petitioners' damages are a direct and proximate result of the Respondents' conduct;

58. In consequence of the foregoing, the Petitioners are justified in claiming damages;

III. FACTS GIVING RISE TO INDIVIDUAL ACTIONS BY EACH MEMBER OF THE CLASS

59. Every member of the Class has purchased and/or leased a Subject Vehicle and is justified in claiming at least one or more of the following as damages:

    a. Overpayment of the purchase price and/or lease payments of the Subject Vehicles,

    b. Lower resale value of the Subject Vehicles,

    c. Increased fuel expenditures,

    d. Out-of-pocket loss,

    e. Cost of future attempted repairs,

    f. Trouble and inconvenience, and

    g. Punitive and/or exemplary damages;

60. However, even if the Respondents were to repair the Defeat Device in the Subject Vehicles so that they comply with emissions requirements, the repair would not compensate the Class for the significant harm that the Respondents have caused because any repairs performed as part of the recall are likely to significantly diminish the performance of the Subject Vehicles;

61. All of these damages to the Class Members are a direct and proximate result of the Respondents' conduct;

IV. CONDITIONS REQUIRED TO INSTITUTE A CLASS ACTION

A) The composition of the Class makes it difficult or impractical to apply the rules for mandates to sue on behalf of others or for consolidation of proceedings

62. Petitioners are unaware of the specific number of persons who purchased and/or leased the Subject Vehicles; however, it is safe to estimate that it is in the tens of thousands;

63. Class Members are numerous and are scattered across the province;

64. In addition, given the costs and risks inherent in an action before the courts, many people will hesitate to institute an individual action against the Respondents. Even if the Class Members themselves could afford such individual litigation, the court system could not as it would be overloaded and, at the very least, is not in the

interests of judicial economy. Further, individual litigation of the factual and legal issues raised by the conduct of the Respondents would increase delay and expense to all parties and to the court system;

65.1 This class action overcomes the dilemma inherent in an individual action whereby the legal fees alone would deter recovery and thereby in empowering the consumer, it realizes both individual and social justice as well as rectifies the imbalance and restore the parties to parity;

65. Also, a multitude of actions instituted in different jurisdictions, both territorial and judicial districts, risks having contradictory judgments on issues of fact and law that are similar or related to all members of the Class;

66. These facts demonstrate that it would be impractical, if not impossible, to contact every member of the Class to obtain mandates and to join them in one action;

67. In these circumstances, a class action is the only appropriate procedure and the only viable means for all of the members of the Class to effectively pursue their respective rights and have access to justice;

B) <u>The claims of the members of the Class raise identical, similar or related issues of law or fact</u>

68. Individual issues, if any, pale by comparison to the numerous common issues that will advance the litigation significantly;

69. The damages sustained by the Class Members flow, in each instance, from a common nucleus of operative facts, namely, Respondents' misconduct;

70. The claims of the Class Members raise identical, similar or related issues of fact or law as outlined hereinbelow;

71. The interests of justice favour that this <u>re-amended</u> application be granted in accordance with its conclusions;

V. <u>NATURE OF THE ACTION AND CONCLUSIONS SOUGHT</u>

72. The action that the Petitioners wish to institute on behalf of the members of the Class is an action in damages, injunctive relief, and declaratory judgment;

73. The conclusions that the Petitioners wish to introduce by way of a<u>n</u> <u>application</u> to institute proceedings appear hereinbelow;

A) <u>Petitioners request that they be attributed the status of representatives of the Class</u>

74. Petitioners are members of the Class;

75. Petitioners are ready and available to manage and direct the present action in the interest of the members of the Class that they wish to represent and are determined to lead the present file to a final resolution of the matter, the whole for the benefit of the Class, as well as, to dedicate the time necessary for the present action before the Courts and the *Fonds d'aide aux actions collectives*, as the case may be, and to collaborate with their attorneys;

76. Petitioners have the capacity and interest to fairly, properly, and adequately protect and represent the interest of the members of the Class;

77. Petitioners have given the mandate to their attorneys to obtain all relevant information with respect to the present action and intend to keep informed of all developments;

78. Petitioners, with the assistance of their attorneys, are ready and available to dedicate the time necessary for this action and to collaborate with other members of the Class and to keep them informed;

79. Petitioners are in good faith and have instituted this action for the sole goal of having their rights, as well as the rights of other Class Members, recognized and protected so that they may be compensated for the damages that they have suffered as a consequence of the Respondents' conduct;

80. Petitioners understand the nature of the action;

81. Petitioners' interests are not antagonistic to those of other members of the Class;

82. Petitioners are prepared to be examined out-of-court on their allegations (as may be authorized by the Court) and to be present for Court hearings, as may be required and necessary;

83. Petitioners, with the assistance of their attorneys, have created a webpage at www.clg.org wherein other Class Members can enter their coordinates to join the class action and be kept up to date on its development; as of the date indicated at the end of this re-amended application, 1,842 Quebec-resident Class Members have entered their contact information, the whole as appears more fully from a redacted copy of these Class Member's details, produced herein as **Exhibit R-50**;

B) Petitioners suggest that this class action be exercised before the Superior Court of justice in the district of Montreal

84. A great number of the members of the Class reside in the judicial district of Montreal and in the appeal district of Montreal;

85. Petitioners' attorneys practice their profession in the judicial district of Montreal;

86. The present application is well founded in fact and in law.

FOR THESE REASONS, MAY IT PLEASE THE COURT:

GRANT the present re-amended application;

AUTHORIZE the bringing of a class action in the form of a re-amended application to institute proceedings in damages, injunctive relief, and declaratory relief;

APPOINT the Petitioners as representatives of the persons included in the class herein described as:

- all persons, entities or organizations resident in Quebec who purchased and/or leased one or more of the Subject Vehicles equipped with a Defeat Device, or any other group to be determined by the Court;

IDENTIFY the principle issues of fact and law to be treated collectively as the following:

a) Did the Respondents either install the Defeat Devices or have the Defeat Devices installed in the Subject Vehicles and/or in their engines and/or did they participate in and/or enable their installation?

b) Did the Respondents know or should they have known about the Defeat Device and, if so, for how long?

c) Did the Respondents conceal the existence of the Defeat Devices from federal regulators and from the public?

d) Were the Respondents knowing and/or active participants in a common course of conduct to defraud federal regulators and/or consumers?

e) Did the FCA Respondents engage in unfair, false, misleading, or deceptive acts or practices regarding the manufacture, marketing, distribution, warranting, lease and/or sale of the Subject Vehicles?

f) Are the Petitioners and the Class Members entitled to a declaratory judgment stating that the Respondents committed misconduct in utilizing the Defeat Devices and/or in (…) misstating the qualities of the Subject Vehicles?

g) Should an injunctive remedy be ordered to prohibit the Respondents from continuing to perpetrate their unfair, false, misleading, and/or deceptive conduct?

h) Should an injunctive remedy be order to force the FCA Respondents to buy back the Subject Vehicles or otherwise, free of charge, remove the Defeat

Devices while insuring that the Subject Vehicles conform to promised performance and fuel economy guarantees?

i) Are the Respondents responsible for all related damages (including, but not limited to: the overpayment of the purchase price and/or lease payments of the Subject Vehicles, the lower resale value of the Subject Vehicles, increased fuel expenditures, out-of-pocket loss, the cost of future attempted repairs, and trouble and inconvenience) to Class Members as a result of their misconduct and in what amount?

j) Are the Respondents responsible to pay punitive damages to Class Members and in what amount?

IDENTIFY the conclusions sought by the class action to be instituted as being the following:

GRANT the class action of the Petitioners and each of the members of the Class;

DECLARE the FCA Defendants have committed unfair, false, misleading, and/or deceptive conduct with respect to their designing, marketing, advertising, leasing, selling and/or representing the Subject Vehicles as having certain levels of lower fuel economy and lower emissions than in reality;

DECLARE the VM Motori Defendant has committed unfair, false, misleading, and/or deceptive conduct with respect to their designing, manufacturing, calibrating, and/or delivery of the EcoDiesel engine system for inclusion in the Subject Vehicles, knowing and intending that the Subject Vehicles, along with their engine system, would be marketed, distributed, warranted, leased and/or sold by the FCA Defendants;

DECLARE the Bosch Defendants have committed unfair, false, misleading, and/or deceptive conduct with respect to their creation, design, development, manufacture, testing, supply, and/or sale of the Defeat Devices;

ORDER the FCA Defendants to cease from continuing their unfair, false, misleading, and/or deceptive conduct by designing, marketing, advertising, leasing, selling and/or representing the Subject Vehicles in a false manner and/or ORDER all Respondents to cease from continuing their unfair, false, misleading, and/or deceptive conduct in enabling same and/or in knowingly concealing the existence of the Defeat Devices from federal regulators and from the public;

ORDER the FCA Defendants to recall and repair the Subject Vehicles free of charge, or otherwise, to buy back the Subject Vehicles at the original sale price or return any and all lease payments;

DECLARE the Defendants solidarily liable for the damages suffered by the Petitioners and each of the members of the Class;

CONDEMN the Defendants to pay to each member of the Class a sum to be determined in compensation of the damages suffered, and ORDER collective recovery of these sums;

CONDEMN the Defendants to pay to each of the members of the Class, punitive damages, and ORDER collective recovery of these sums;

CONDEMN the Defendants to pay interest and additional indemnity on the above sums according to law from the date of service of the application to authorize a class action;

ORDER the Defendants to deposit in the office of this court the totality of the sums which forms part of the collective recovery, with interest and costs;

ORDER that the claims of individual Class Members be the object of collective liquidation if the proof permits and alternately, by individual liquidation;

CONDEMN the Defendants to bear the costs of the present action including expert and notice fees;

RENDER any other order that this Honourable court shall determine and that is in the interest of the members of the Class;

DECLARE that all members of the Class that have not requested their exclusion, be bound by any judgment to be rendered on the class action to be instituted in the manner provided for by the law;

FIX the delay of exclusion at thirty (30) days from the date of the publication of the notice to the members, date upon which the members of the Class that have not exercised their means of exclusion will be bound by any judgment to be rendered herein;

ORDER the publication of a notice to the members of the group in accordance with article 579 C.C.P. within sixty (60) days from the judgment to be rendered herein in the Montreal Gazette and La Presse;

ORDER that said notice be available on the Respondents' websites, Facebook pages, and Twitter accounts with a link stating "Notice to Audi Vehicle Owners/Lessees";

ORDER that said notice be sent by individual letters emailed and/or mailed to Class Members by using the Respondents' customer list;

RENDER any other order that this Honourable Court shall determine and that is in the interest of the members of the class;

THE WHOLE with costs, including all publication and dissemination fees.

Montreal, March 6, 2018

(s) Jeff Orenstein

_____
CONSUMER LAW GROUP INC.
Per: Me Jeff Orenstein
Attorneys for the Petitioners

CONSUMER LAW GROUP INC.
1030 rue Berri, Suite 102
Montréal, Québec, H2L 4C3
Telephone: (514) 266-7863
Telecopier: (514) 868-9690
Email: jorenstein@clg.org