Israel National Defense College

46th class 2019-2020

 Exercise # 2

#  Volkswagen emissions scandal



**Responsible Instructor: Yehuda Yohnanof**

Table of Contents

1 History

2 backgrounds

3 implications

4 motor sports

5 for further reading

**Introduction**

The Dieselgate affair is the name of the fake airline media results of air pollution testing and air pollution standards in Volkswagen Group cars discovered in September 2015. Forgery was initially attributed to 500,000 Volkswagen and Audi diesel-based cars sold between 2009 and 2015, and then the company admitted it there are 11 million cars made by the group, including the Skoda and Seat brands. It was later discovered that the scam is even wider and also includes the gasoline and natural gas cars produced in the corporation.

The source of the case name in the corporation's diesel engines, in which the scams were originally discovered, but as the investigation progressed it became apparent that the forgery also included the gasoline and gas cars.

As the affair progressed, it became clear that other carmakers, such as BMW Audi, Mitsubishi and Suzuki, were forging pollution and fuel consumption data on their vehicles.

**History**

In September 2015, it was discovered that the Volkswagen Group was running software designed to pass U.S. pollutant emissions tests on about 500,000 diesel-powered cars in the Volkswagen and Audi brands between 2009 and 2015. The software, which is used by the company to use 11 million cars worldwide, has identified that the cars are undergoing pollution testing and routinely shut down pollution prevention mechanisms. 35 of the law. The United States Environmental Protection Agency (EPA) has issued a warning to the Volkswagen Group that this software is operating as a "defeat device," as defined in the US Prohibited Clean Air Act. The company has apologized for the use of the software and is expected to face legal proceedings, further investigations by regulators, and class actions by its clients in several countries.

The Independent Body the International Clean Air Council (ICCT) commissioned in 2014 an examination of 15 types of vehicles. Among the researchers was a group of 5 scientists from the University of West Virginia who detected high emissions during practical driving tests on three diesel-based vehicles. [9] The ICCT invited information from two other sources. The council communicated the results of their research to the EPA and the California Air Resources Board, which found the said software.

The discoveries raised suspicion of contamination by other car manufacturers, and shortly afterwards it became clear that BMWs vehicles also did not meet the pollution requirements.

On September 28, 2015, Audi announced that 2.1 million of its made diesel cars had been affected by the system.

As the investigation continued, Volkswagen admitted that forging air pollution data was not limited to diesel cars, and included about 800,000 gasoline and gas cars. It was also found that the exceptional air pollution data also included greenhouse gas emissions such as carbon dioxide, in addition to the originally discovered NoXs.

**Background**

In 2009, Volkswagen began converting the fuel injection systems in passenger cars with diesel engines manufactured from TDI (Turbocharged direct injection) to common rail fuel injection technology. This injection system has enabled more efficient fuel supply, both through the use of more precise electronic control over the fuel injection process, as well as by increasing the injection pressure, which theoretically allows more efficient air dispersion and improving the ratio of the air quantity to the amount of fuel in the engine.

With the addition of a particulate filter to reduce soot emissions, and in some models a selective catalytic converter (Urea Injection System), Volkswagen argued for its engines to meet American pollutant emissions standards while maintaining vehicle performance.

Low pollution levels have earned VW vehicles subsidies for clean car makers and tax benefits in the United States.

**Emission standards**

Volkswagen and Audi cars that were identified as violating the pollution standards were in compliance with US EPA Tier 2 / Bin 5 Pollutant Emissions Standard and California State LEV-II ULEV. Both devices require that nitrogen oxide emissions should not exceed 0.043 grams per km at the end of vehicle life. (Between 190 and 240,000 km, depending on vehicle type and relevant standard)

This American standard is one of the strictest in the world. By comparison, the corresponding European standard, bearing the name Euro 5 (for 2010–2014 models) and Euro 6 (for 2015 models) limit nitrogen oxide emissions to 0.18 g / km and 0.08 g / km respectively.

Call for repair of 480,000 vehicles in the United States

On September 18, 2015, the US Environmental Protection Agency and CARB issued a message to the Volkswagen Group stating that about 480,000 Volkswagen and Audi cars with 2-liter diesel engines sold in the United States between 2009 and 2015 included a "defeat device" as defined in pollution regulations the air.

This mechanism, a dedicated engine control unit (ECU) firmware, identifies a particular combination of parameters such as steering wheel failure with engine acceleration, a high difference between the number of revolutions per minute of the rear wheels versus the front (test facility data) as a contamination test condition Air and will cause the vehicle to meet exhaust requirements by operating the pollution prevention mechanisms at maximum rate. However, in normal operation, these mechanisms will be switched off, allowing the engine to generate more power torque, resulting in higher fuel efficiency, against an increase in nitrogen oxide emissions by up to 40 times the law.

The EPA has taken action against Volkswagen in an action known as Notice of Violation. This is a civil enforcement action under the authority of the American government agencies. This enforcement action does not require an appeal to a judicial tribunal, and is performed alongside the Justice Department's appeal to both judicial, civil and criminal courts, on behalf of the. 24

The difference between the two types of action is that in judicial enforcement, the guilt is not determined until the required legal proceedings are completed, while in civil enforcement, the guilt is determined by the EPA's exclusive authority, and results in EPA sanctions, or an agreement with a breach of regulations to deal with its damage. In that case, the EPA required the Volkswagen Group to order the 480,000 affected vehicles for repair.

The alert issued to Volkswagen Group violated a number of U.S. laws, including 42, and Section 203 (a) (1) of the Clean Air Act. The EPA provision for ordering vehicles for repair is enforceable without appeal to external EPA jurisdictions. [25] In addition to the alert, the U.S. Department of Justice investigation is underway and could result in civil and criminal charges being filed against the company.

**Implications**

Legal and financial implications

Nearly 482,000 Volkswagen diesel vehicles have been sold in the United States since 2009, distributing pollutants "related to a variety of health problems, including asthma, other respiratory problems and premature death" [26] Contaminants include the Volkswagen Jetta, Beetle, Golf, Passat And the Audi A3

**Government actions**

United States: EPA has declared that if the charges are proven in court, the fine imposed on the group will be up to US $ 37,500 per vehicle (approximately $ 18 billion, total). As a result, the group suspended TDI engine sales on September 20, 2015. In addition to the possibility of imposing civil penalties, the U.S. Department of Justice and the Department of Environment and Natural Resources have begun criminal investigations into the Volkswagen Group's conduct of the Subcommittee on Supervision In the energy field of the US House of Representatives, it has declared a hearing in the Volkswagen case. New York State Attorney Eric Schneiderman said his investigation into the matter was also underway, warning that no company would be allowed to evade compliance with environmental legislation, or be allowed to promise customers that it would not comply. In June 2016, Volkswagen reached an agreement with authorities in the United States, under which it will pay $ 15 billion in compensation to fraudulent car owners.

**Canada**: Environment Canada (affiliated with the Canadian Environment Department) has announced that it has launched an investigation into whether the said software was used in vehicles sold in Canada.

**South** **Korea**: Authorities have launched an investigation into the air pollution domain of Volkswagen vehicles and other European manufacturers. One of South Korea's environmental ministry officials said that finding counterfeit air pollution in Volkswagen's diesel-based cars will investigate all German diesel cars in the country.

**Switzerland** Swiss Road Ministry investigates whether Volkswagen cars similar to those sold in the United States were also sold in Switzerland.

**EU**: Government regulatory agencies have opened proceedings in France, Italy, Germany, Spain, the Netherlands, the Czech Republic and Romania. Several countries have called for a European-wide inquiry. Volkswagen announced that the use of the system was not limited to the United States and included vehicles marketed to Europe.

**Netherlands**: The Netherlands has invested billions in subsidizing energy-efficient cars in recent years. Jesse Klaver, of the GroenLinks party, commented that the Netherlands must demand the money invested back in companies that turn out to have made a similar scam in the Netherlands.

**United Kingdom**: On September 24, the Department of Transportation announced that it would begin re-testing cars from a variety of manufacturers to ensure that the use of defeat devices was not used at all in the auto industry.

**India**: Government representatives of India have announced that they are following developments.

**ISRAEL**: The Association of Israeli Licensing Institutes announced in 2013 in a letter to air pollution from office cars to Amir Salzberg that he was unable to carry out tests on Volkswagen diesel cars, although the identified symptoms were different from those detected in the United States in 2015. After the case exploded. , The tax authority announced a tax benefit review for the company's diesel vehicles (up to NIS 15,000 per car), and announced in December to Champion Motors importer that it would have to repay grants totaling NIS 100 million.

**Private actions**

As of September 23, 2015, at least 25 class action lawsuits have been filed in the United States and Canada on behalf of VW and Audi car owners on charges of fraud and breach of contract, citing the decline in the value of cars to be repaired to meet pollution requirements due to reduced efficiency and diesel engine power after installing these systems.

In Israel, a class action was filed for NIS 450 million against Volkswagen and its importer in Israel, in which the plaintiff sought to compensate the buyers for the decline in the value of the vehicles if the vehicles were not disapproved in Israel, and at the full price of the vehicle if it is decided that these vehicles are taken off the road. In response, Champion Motors, a Volkswagen importer in Israel, announced the cessation of marketing of the relevant models in Israel. Subsequently, further class action lawsuits have been filed against Champion Motors and the manufacturer, and 3 unified claims will be heard in Tel Aviv District Court.

**Impact on sales**

Over a quarter of Volkswagen Group sales in the United States are diesel-powered cars. The corporation has opted for a clean car-based diesel engine promotion strategy over electric cars and hybrid cars.

The vehicles affected by the calls for repair in the United States included the models:

2009–2015 Audi A3 2.0L TDI

2009–2015 VW Beetle 2.0L TDI

2009–2015 VW Golf 2.0L TDI

2009–2015 VW Jetta 2.0L TDI

2012-2015 VW Passat 2.0L TDI

The group stated that the system is active in 11 million vehicles sold worldwide, in addition to 480,000 2.0L TDI vehicles sold in the United States. In addition, the system was also damaged by vehicles sold in other countries with the company's EA189 engine. The software also affected the performance of the four-cylinder engines EA188 and EA288. [56]

The value of the group's share

On September 21, 2015, the first day of trading after the EPA announcement was published, Volkswagen Group prices dropped 20% on the Frankfurt Stock Exchange. The next day, the stock fell another 22%, bringing the stock down 35%. On 23, the stock fell an additional 10.5%, below the EUR 100 per unit, reaching a 4-year low.

Other German carmaker's stock prices were also affected, the BMW group down 4.9%, and the Daimler AG Corporation (which includes Mercedes, Mitsubishi and other brands) by 5.8%. International Council for Clean Air.

In April 2016, manufacturer Mitsubishi also admitted to forging fuel-efficiency testing results since the early 1990s. This announcement resulted in sharp falls in the price of the company's stock.