

THE CASE OF THE VOLKSWAGEN SECRET SOFTWARE

Recap the Facts

In the year 2005, Volkswagen (VW) applied a new diesel technology to its vehicles that later in May of 2014, was found to be above the standard level of nitrogen oxide emission by an engine for road operation. Later that year in December, Volkswagen agreed to recalibrate the diesel engine in order to reduce the emission, but during the summer of the following year, the California Air Resources Board performed a second test that resulted in no difference in the nitrogen oxide emission level by the diesel engines. Later, Volkswagen admitted that the vehicles were actually designed to bypass the emission test, and that no change was actually made to the engines themselves. Months later, during the first half of the following year of 2016, Volkswagen was sued by the Department of Justice for violating the Clean Air Act. Volkswagen ended up agreeing to spend \$14.7 billion for cheating on the emission testing for the diesel vehicles.

Executive Team

The CEO of Volkswagen, Martin Winterkorn, fulfilled his responsibilities pretty well, but was irresponsible when it came to the society's well-being later on in his career with Volkswagen. After the case with the diesel engines in the company's vehicles, Mr. Winterkorn terminated his function as a chief executive officer due to being exposed of their decisions by the California Air Resources Board.

Governing Organizations

The Department of Justice, Environmental Protection Agency, and California Air Resources Board were the three governing organizations involved in this Volkswagen case. Over the course of about two years, these organizations were able to perform their governing responsibilities by directing Volkswagen to finically pay for their actions.

Consultants and Outside Testers

The International Council on Clean Transportation hired a group of scientists from West Virginia University to perform an emission test on the Volkswagen diesel vehicles, resulting to the findings of Volkswagen's unethical doings. Being ethical beings, these outside testers did not violate their responsibilities. The respected privacy laws by following the procedure of conducting their research and reporting the results directly to the International Council on Clean Transportation without any leakage scandals. By doing so, these testers have also help the United States' societal physical well-being by reducing the cause long-term exposure to high nitrogen oxide levels due to these Volkswagen diesel engines.

In House Programmers

The software created by the programmers of these diesel vehicles, was categorized as a trade secret within the company. They performed mischievous work, violating their software ethics as programmers as these vehicles were tested under in eco-friendly mode in the lab.

Users, Consumers, Victims

The users and consumers of these Volkswagen diesel vehicles were also the victims in this whole scandal. Most of these individuals were not aware of the high amount of risk they were exposed to by the levels of nitrogen oxide emissions that these vehicles were emitting, makes them pretty innocent overall.

Hackers or Culprits

No external third party was involved in this scandal. The major culprits were pretty much stated as the executive team and the engineers of Volkswagen.

Evaluate the Accountability of the Major Players

Executive Team: 70% → 70% (no difference)

I didn't change this percentage, because it seems fair since if it wasn't for the executive decision to go through with cheating the emission test for these diesel vehicles, and have they actually fixed their engines to emit a lower and at least standard amount of nitrogen oxide, there would not be this health risk based on their illegal action by trying to cheat the system overall.

In House Programmers: 30% → 30% (no difference)

I didn't change this percentage either, because the in house programmers actually help make the executive team's decision become a reality. So they have a great negative part in this scandal also.

Governing Organizations: 0% → 0% (no difference)

The governing organizations didn't do anything wrong, and actually followed their responsibilities of what they do as governing organizations, which is why I decided not to change this initial percentage either.

Victims: 0% → 0% (no difference)

The victims here had no negative cause to this case either, which is why I decided not to change this percentage also. Most of them were oblivious to what was being done of Volkswagen's decisions with their diesel vehicles on the roads.

Analyze which Laws and Practices

Law 1

The law of regulating nitrogen oxide levels worked for the governance of accountability, because it was what caused Volkswagen to get in trouble for their high emittance of the toxin. This law was broken by the company in order to get away for what they have done and decided to do with their diesel running vehicles. Such a decision was in my opinion, unethical, because it was illegal, with Volkswagen executive team having no concern with their consumers' and society's physical well-being with their diesel vehicles.

Law 2

Not for having a law that checks new vehicle's engines emission levels by a manufacture from the start, is what did not catch Volkswagen in the first place, having Volkswagen getting away with what they have created in the beginning. Just the lack of legal regulation for the mass production on any particular product, especially the vehicles in this case, caused any unethical issue to occur.

Law 3

Not having a law that tests new software for products, outside of the manufactures' own labs, did not work for the governance of accountability. There was a lack of legal regulation with the mass production of software implemented into these diesel running vehicles, causing Volkswagen being able to get away with such a software program written.

Recommend Changes

Overall, just having more legal regulation with companies by the governing organizations that are in charge sounds like a fair change in the industry to consider, because manufactures like Volkswagen, can get away with unethical issue like selling high emitting nitrogen oxide vehicles. Just by having the word and possibly just verbal agreement of Volkswagen agreeing to fix their vehicles, they actually ended not doing so.

Also companies, especially as large and well-known as Volkswagen, should really consider ethical issues such as not having their vehicles not emitting such high levels of nitrogen oxide, because they have a great influence on a large population of vehicles to begin with. And I suppose for their company's sake, there is even a higher chance for the company to get caught breaking the law due the large amount of consumer they have.