Student's Name

Professor's Name

Course

Date

Cheating Diesel Emissions Tests

**Facts and Background**

The 2015 Volkswagen emissions (or "dieselgate") scandal was the worst case of cheating diesel emissions in automotive history. The automaker marketed supposedly clean TDI diesel models for the Golf and Jetta in the American market. The "clean" market was done to demonstrate its compliance to the Americans standards of EPA Tier 2 emission of nitrogen dioxide and nitrogen oxide (Selin). The automaker believed it was unnecessary to use selective catalytic reduction technology, and thus opted for the lean NOx Trap technology (Selin). The NOx trap technology was defective because the engineers programmed the software to allow the NOx emissions to remain minimal during test conditions. However, on the roads, the software turned off the NOx emission controls; hence violating the Tier 2 standards. This unethical action shocked the world. Volkswagen admitted to having violated the EPA provision, thus raising ethical questions part of the AIAA Code of ethics and the NSPE.

**The Dilemma / Ethical Question**

The engineers who manipulated the software caused a huge impact of a global magnitude. These engineers used clever algorithms. The modification could have been part of the engineers' practice. Judging by the outcome, could the engineers have violated the IEEE code, or does there exist internal conflict within their practice?

**What decision was made? Was it ethical? Why or why not?**

The engineers violated their IEEE Code by aiding in the rigging activities. The NSPE establishes the code of ethics that engineers must value (1). Under the rules of practice, engineers

shall hold the public's welfare, health, and safety paramount. The provision requires that wherever a circumstance overrules an engineer's judgment, they must offer a clear and timely notification to the employer or client. From the information available, engineers notified the company about the rigging activities. In this sense, they never violated the rule. However, according to the AIAA Code of Ethics, engineers should not engage in activities that jeopardize public safety and health (which should be treated as paramount), and since their actions in this scandal compromised both, they could be held liable for violating that rule. These engineers also failed to comply with the available public laws. The AIAA Code of Ethics expects engineers to reject testing- or research-based acts of misconduct like the manipulation of software algorithms and to remain objective.

**What are some potential impacts of the possible ethical decisions in a global, economic, environmental, and societal context?**

VW is a global brand and organization. This fraud tainted its reputation beyond repair because it demonstrated that the company was irresponsible (Hall). The economic impact was adverse. Since the scandal affected over 11 million cars globally, the organization was compelled to allocate about €6.7 billion to cover the costs. As a result, the organization reported a huge loss of €2.5 billion (Selin). The chief executive officer was the first victim following an immediate ouster. It also received a charge of $7.3 billion on its earnings (Selin). The company's stock price reported a 32% drop within a week. The drop in the stock price translated into a loss of $17 billion in shareholder value (Alter). The scandal affected the sales of automobiles in the American and European markets.

Volkswagen not only fooled regulators and customers, but also harmed the globally shared resources. It polluted the clean air; thus exposing people's health to the worst risk. The organization compromised the Clean Air Act. The American EPA explained that the law expected manufacturers to cut their air pollution nationally (Hall). It opted to manipulate the

software of its vehicles to emit higher nitrogen oxide beyond the recommended volume. Greenhouse gas is toxic, contributing to premature deaths (Alter). In the societal context, the scandal made many people shun Volkswagen and diesel vehicles. Taste for these vehicles declined. Society has questioned the company's corporate social responsibility and commitment to society. Since Volkswagen is a source of livelihood to many employees, the rigging engine scandal makes the workers vulnerable (Trefis Team). Therefore, the domino effect is immense.

Works cited

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