

Ethics Essay

As engineers, we have an impact on countless people downstream of our work. Every widely distributed product a consumer uses was designed by one or more engineers. Often the people trust their safety to the work of such engineers, as is the case for automotive, elevators, and many day-to-day technologies. With an established code of ethics, we can gain the trust of the public to make the right decisions for everyone and the environment we share. We can also be more assured that other engineers will be making similar considerations for us, even in the presence of competition and other pressures to do otherwise. The code of ethics protects public safety and welfare, the environment, and fair business interactions.

In our class, we have looked over the IEEE Code of Ethics, as well as other instructive resources regarding the core “Virtues of Ethics” and the identification of ethical dilemma through the “5 P’s of ethics” (the “five precursors of ethical violations”). The Virtues of Ethics reduce some of the specifics of the IEEE Code of Ethics into the character traits that are required to exemplify good ethics: integrity, honesty, fidelity, charity, responsibility, and self-discipline. I think this list of virtues is thorough; integrity alone encompasses a wide range of good character traits. Personally, it is easiest to identify an ethical dilemma if I realize my decision could result in harm to others. Our class was shown the case of the Ford Pinto, where a known engineering defect created a disproportionately dangerous crash-safety failure, which resulted in injury and death. If I were an engineer on the team and had known about this flaw, I would not be okay with management allowing the car to continue production until the flaw was fixed. If management did not listen to these concerns, I would be inclined to get authorities involved since the safety of others is being risked in the name of profit. This is ultimately an application of the virtues of integrity, charity, and responsibility. Other ethical issues may not be so obvious, in which case I would like to reference my company’s ethical guidelines, the IEEE Code of Ethics, the golden rule (“do as you would like others to do”), and my conscience to guide me to the most ethical decision. Raising concerns to my associates and superiors would be an appropriate path to help guide my decision, but the final decision would ultimately remain in my hands.

Another ethical issue presented in class was the case of the Volkswagen emission test scandal. The company had been caught equipping its cars with defeat devices that altered the performance and emissions of the cars during their required emissions testing, to allow them to meet the various environmental requirements of their intended markets. The actual products did not meet these requirements in daily driving conditions—it was only in the test, for which they essentially cheated, that the vehicles were meeting these regulations. The behavior of the Volkswagen engineers and managers responsible for the emissions tests violated the virtues of integrity, honesty, and charity. All the virtues are connected, but this issue did not seem to include the virtues of fidelity or self-discipline to the same degree as the others. By showing a

lacking moral standard by knowingly cheating on a test of any form, they did not exemplify integrity. They were obviously dishonest, by presenting their vehicles as if they met the required standards when they actually did not. Finally, they lacked charity and caring for the goodwill of others, since they are ultimately harming others by polluting the environment. One virtue or “good practice” that I think would discourage a case like that of Volkswagen is to avoid shortcuts and focus on quality. By aiming to make a product of high quality, an engineer will have less pressures to cheat or lie about the quality of their work. The virtue of responsibility was also called into question, since few in the company took responsibility for the scandal; many executives claimed ignorance and passed the blame down to lower-level employees, even though the scandal seemed to be coordinated at some higher level. When discussing with my classmates about the issue of responsibility in the Volkswagen and Ford examples, some thought the ethical failure was more in the engineers, and others thought it was in the managers. However, we all agreed that everyone involved had an ethical responsibility to prevent such violations, and ultimately failed to protect the safety of the public in these examples.