Ethics project

Science, Social Science

Ethics Project The Occidental Engineering project involved a software engineer man d to design and program, aerospace software for the Federal Aviation Agency (FAA). During the testing of the prototype, the engineer realized that a bug led to the disappearance of a plane in case of too many aircrafts in the system. However, the boss urges the engineer to ignore the bug issue and sign off the software. The engineer approved the project and delivered the software to FAA (McFarland 1).

It is paramount for any engineer to maintain work ethics and reputation in the entire engineering career. Practicing the ethical requirements help in ensuring safety, health and the welfare of organizations and individuals because of the closeness in human and business relations. Engineers must abide by the code of ethics as stipulated by the National Society of Professional Engineers (NSPE). The code articulates the significance of the decisions made by engineers that require full concentration, honesty, fairness and integrity.

The misdeed by the responsible engineer is determined by his actions towards agreeing to sign off the project as complete in full knowledge that the software contained a bug. According to the prototype tests, a high number of airplanes led to the disappearance of one of them from the system. However, the boss convinced the engineer that the FAA would not detect the problem since she was aware of their testing methods (McFarland 1). As such, the boss managed to persuade the engineer to sign and as a result, with the full knowledge of the error in the software, the engineer signed off the software. In this case, the responsible engineer had the option of declining the signing off and delivery of the software to FAA until the error

was corrected.

With such an error, the software could mislead the traffic control personnel and lead to an air disaster. Such disasters lead to the destruction of property and loss of life. The responsible engineers can be held responsible for such disasters in a court of law. Additionally, such a misdeed can lead to the loss of practicing license as an engineer, blacklisting, being fired and a jail term.

After signing the software off and delivering it to the FAA, the engineer broke several codes of ethics by deliberately approving a faulty software.

According to the NSPE codes, the engineer breached Section 1. 5 of the NSPE Code of Ethics that state, “ Engineers, in the fulfillment of their professional duties, shall avoid deceptive acts.” The engineer also broke Section II. 1. b of the NSPE Code of Ethics that state, “ Engineers shall approve only those engineering documents that are in conformity with applicable standards” (National Society of Professional Engineers 2).

In order to circumvent the consequences of the faulty software, the engineer should report the issue to have it withdrawn from use. This course of action would help in preventing any potential air disasters. In relation to the signing of the software, the engineer should have sought to correct the error. It was within his responsibility to inform the FAA and ask for more time to debug and deliver the complete software without errors.

The engineer in charge of the creation of the software should be disciplined for the misdeed. This is because the FAA entrusted him to deliver a quality and error-free software, but instead, he delivered a faulty one knowingly.

The possible consequences of the bug and the use of the software endanger the public. This is against the main objectives of the engineers’ code of

ethics (National Society of Professional Engineers 2). Being penalized or fired is one of the ways to punish the engineer. In case of further disasters resulting from the use of the software, legal action can be taken against the company and the responsible engineer.

Works Cited

McFarland, S. Michhae. Occidental Engineering: Occidental Engineering Case Study. June 2012. Web. 10 March 2015.

National Society of Professional Engineers. Code of Ethics. February 2015. Web. 10 March 2015.