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Ethics

Engineering ethics analyze and explore the decision making process related to engineering in order to set codes of conduct which serve as guidelines for the engineers when implementing decisions. These ethical choices are based on the obligation that an engineer has toward the society, the client, the profession and the employer. Engineers have deferent codes of conduct depending on the professional aggrupation he or she belongs to. The most commonly known engineering aggrupation's are the IEEE, NSPE, ASME, ASCE, etc. Even though their codes of conduct might vary minimally from one association to other, all of them intend to ensure the safety, health, welfare of the public, and the overall protection of the environment. These factors can be more readily achieved if some elements are taken into consideration when practicing the engineering profession. These factors can be but are not limited to: 1) take tasks which the engineer is qualified to perform, 2) offer honest criticism of technical procedures, 3) do not discriminate people based on race, religion, gender, age, nationality or disability, 4) work in teams, 5) give credit to others, 6) avoiding conflict of interest, etc. When one or more of the above indications is violated, the action can be considered unethical. Therefore, the engineer will not accomplish the responsibility that he or she has with one or more of the agent such as society, the client, the profession and the employer.

Engineering Ethics bring forth the notion of morality into the midst of technological development as engineering and ethical theory ultimately go hand in hand. This is because the subject of Engineering regardless of its nature, deals one way or another with human life in all its aspects. It is because of this primary reason why Engineers for all the reasons should be held responsible for their decisions. If an Engineer purposely makes decisions such as accepting bribery, showing dishonesty with the measurements for the sake of saving money, and so on, then that person in every way should be considered unethical to the code of Ethics stated by professional societies like IEEE, ASME, ASCE and AiChe. There are many incidents in history that are known to have taken place as a result of someone or a group of people being

unethical. An incident that still underlines the world of engineering today is the Space Shuttle Challenger disaster of 1986. This is because of the fact during this event, as the author Charles F. Trentelman stated in the article, “Two men fought to prevent Challenger launch”, that the engineers of Morton Thiokol Corporation mainly, Allan J. McDonald and Roger Boisjoly clearly warned the management about the consequences of launching the shuttle on January 28, 1986. However, as a result of the Management proceeding on to meeting the deadline and avoiding more delays from taking place, those supervisors of those Engineers gave it a green light to NASA to continue with the plan which as a result ended up not just impacting the prospective future of NASA itself but also the lives of those in the shuttle and in America. It should be noticed from the disaster that because of the management company’s unethical choice to disregard warnings something as disastrous as the Space Shuttle Challenger disaster took place. Rather than meeting the deadline, if they took more time to test the space boosters that were known to fail under cold temperatures, then those seven astronauts would have lived through that day to tell their successful journey. For this reason, it should be a concern for all of us to not to practice bad ethics with especially Engineering. This was a prime example of how technological development and ethical theory coincide and how an Engineers duty is beyond just meeting deadlines and is more prominently on the safety and health concerns of his or her contribution to technological development.