Abstract

XYZ, a fabricator of heat exchangers for petroleum and chemical companies, is a thirty five year old corporation that is financially sound. The company has taken careful steps over the years to manage the cyclical nature of the petroleum industry by effectively managing its workforce and financials. A recent ethical dilemma occurred as the result of the new OSHA standard requiring fabricators of alloy metals to become compliant with 29 CFR 1910.1026, the Chromium VI standard.

The company quickly started investigating the new standard as soon as it was made aware of the standard. The use of outside consultants and the hiring of an internal safety coordinator were the initial steps taken by the company to become compliant with the regulation. The dilemmas are presented and reviewed using different approaches such as the utilitarian and deontological concepts of evaluating ethics to this situation. The General Moral Analysis steps (DeGeorge, 2006) were used in deriving the result and decision.
Introduction

A company that fabricates heat exchangers, which shall be called XYZ for the purposes of not exposing it to an unwarranted audit, became aware in 2007 through an associational membership meeting that the Occupational Safety and Health Administration (OSHA) had enacted a new standard. This new standard, called Chromium VI established a new action level for Hexavalent Chromium that affected all fabricators of alloy metals. The company soon afterwards contacted their outside safety consultants, in whom they entrusted their safety program, and asked about specifics of the new standard. It is important to note that the outside consultants also represented other metal fabricators who made heat exchangers. The consultant group began looking further into the new requirement on behalf of their clients. Unfortunately, for the next year, there was very little education or direction from the outside consultants and very little communication regarding the health issues and enforcement penalties that could occur if found non-compliant by OSHA (OSHA, 2009). They also were lacking in providing timely industrial hygiene monitoring.

In May of 2008, XYZ hired an internal Safety Coordinator who also shared duties in Quality Inspection. One of the first projects assigned to the Safety Coordinator was to investigate the new Chromium VI standard and provide direction on how to comply. The Safety Coordinator had extensive safety experience in other industries, which allowed him the capability to approach this new learning experience with a satisfactory background. There were several ethical dilemmas that had to be thought through. At times, the Safety Coordinator fell into the trap of truncated utilitarianism and had to come back to deontological thinking on this matter. Conversations on the subject included presenting facts as well as the morality of the
situation with shop management and upper management. The Safety Coordinator had to convince all of the decision makers of the moral need to comply fully with the standard.

To understand the importance of the issue, an explanation of Chromium VI is necessary to relay the ethical reasoning of the new OSHA standard. Chromium VI was identified as a carcinogen by the National Institute for Occupational Safety and Health (NIOSH). In March of 2006, OSHA lowered the permissible exposure limit (PEL) to an action level of 2.5µg/m³ and a cap of 5µg/m³ calculated as an 8-hour time-weighted average (TWA). This is approximately a tenth of the old rule found in 29 CFR 1910.1000 Permissible Exposure Limits for Air Contaminants (OSHA, 2009; Harris, 2009, Lincoln Electric, 2009).

Therefore, because of the seriousness of the new regulation, it became necessary to evaluate the outside consultants and their ability to help XYZ be compliant because of XYZ’s continued lack of direction and information. It was advised by the Safety Coordinator to discontinue using XYZ’s current outside consultant, with whom they had been for years, due to lack of technical knowledge and other concerns. It was also recommended that they search for a consultant with more applicable professional experience to help the company act in good faith and adhere to the new standard. The outside consulting company was eventually replaced. XYZ began searching for another outside consultant who had a background and knowledge in the welding industry. Shortly thereafter, they found a consultant with a PhD that was an industry expert with substantial welding background and knowledge of the Chromium VI standard (Harris, 2009).

The Facts

XYZ conducted informal surveys of other companies in Tulsa to ascertain where they were with the Chromium VI standard. These companies fell into three categories: they never
tried to become compliant, they tried but gave up, or they had become disillusioned. The companies that would not try generally did not have a positive safety culture or program. Those who had tried at one time had given up due to the lack of direction of how to comply. Still other companies that were disillusioned by the significance of the PEL requirement continued in futility to address the new OSHA standard and its requirements but still continued to struggle. The OSHA requirements consisted of significant purchases for engineering controls, testing, capital improvements, and other miscellaneous expenses that add up. The PEL goal was difficult at first for XYZ. The stated PEL standard provided many barriers in compliance. Because of these barriers, discussions about the viability of complying with the standard in addition to the capital required to purchase the engineering controls, began to overshadow the ethical dilemma, protecting the employees.

The ethical dilemma was not singular or isolated to one decision. It spanned out the course of years, one decision after another with each decision questioning the course the company decision makers had taken thus far. The primary ethical dilemma involved how much capital should be spent to be compliant and protect the health of the employees when the competition has essentially refused to be compliant. The act of complying created a competitive disadvantage for XYZ to compete in the fabrication of alloy heat exchangers. The secondary issue was when to implement the different phases of the program if compliance were to be attempted.

Possible Alternatives & Those Affected

A high percentage of the work done at XYZ is called carbon steel. Alloy work is different from carbon steel work. Alloy work consists of different grades of chromium up to stainless steel and makes up a smaller percentage of the fabrication work. Chromium is the
metal that when heated to high temperatures, loses its electrons and becomes Hexavalent Chromium. XYZ Management began by asking itself whether it should continue to bid on alloy work in order to avoid the health risks and expense required to continue fabricating alloy heat exchangers.

Careful and thoughtful research went into whether this approach was viable. The most important part of the question was could this approach cause XYZ to lose clients because of the changing needs of their customers due to EPA requirements? It was determined that eliminating the work could be detrimental to future business from its core clients. The management team had to consider the ongoing concerns of doing business. The effect on employees because of a loss of a considerable amount of business could be thought of as greater than the perceived risk of Hexavalent Chromium.

The company decided that it would continue to provide alloy fabrication. The other ethical decisions were yet to be decided. A somewhat truncated utilitarian approach was used in this initial decision. The management team looked at the consequences, losing business, but did not consider the actions required for the greater good. They felt at this point keeping profit and jobs were most important. The next decision to be made, involved deciding whether the company would fully comply with the OSHA standard and protect its employees from the possibility of being diagnosed with cancer because of their exposures to Chromium VI.

*Moral Determination of Prima Facie Elements*

The situation required a moral determination of the prima facie elements. Very little is known about how cancer develops. It is only through actual case studies of populations and or medical testing of animals that any correlation can be obtained. There were enough data, through decades of research, to enact a standard to protect welders from the possibility of
developing cancer from welding chromium according to the newly hired consultant (Harris, 2009). The expense to XYZ, which would be significant due to loss of productivity and expense of new equipment, was brought up many times. However, in the end, the health of the employees could not be argued away. The deontological point of view requires that stakeholders do what is right regarding their actions (DeGeorge, 2006) irrespective to consequences. During this decision process, the temptation to rationalization occurred many times but the discussion always came back to doing what was right.

The concept of prima facie obligation did apply to this situation; do not harm workers as they do their jobs. The fact is that the company now knew that this certain welding process produces a carcinogen, something the company was not aware of before. The ignorance that the company may have had on this matter before it was educated might have excused it morally on some level but that argument could not be used anymore. Basically, DeGeorge (2006) throughout his book, stressed that companies should not kill, lie or knowingly produce conditions for employees that would harm them. This thought should be acceptable to a reasonable person.

*Deontological Approach*

Deontological reasoning, as defined in the textbook *Business Ethics*, does not justify an action but in fact, makes the action pattern itself after moral law (DeGeorge, 2006). As this principle is applied to the ethical dilemma of expenses versus health, a reasonable person must choose by analyzing the situation and come to the correct conclusion about the action. The basis of the reasoning involves the right of the individual performing the chemical process. Workers, in this case, welders, have a right to perform work without exposure to harm that could be mitigated by processes and procedures. XYZ should be compelled by moral obligation to
provide this protection regardless if the welder wants it or not. Individuals in these circumstances will usually try to get compensatory justice for wrongs committed against them, even if they did not want to follow the suggested guidelines. These individuals would have a case, even though they did not want to follow correct procedures, because XYZ had the knowledge and obligation to follow the law and protect its employees.

If one were to use Kant’s categorical imperative to look at the decision not to protect workers, one could argue that not protecting fails in all counts. First, as stated above, the company was now aware and thus had autonomy with respect to a decision concerning continuing the dangerous process. One cannot have autonomy if one is not aware.

Next, one must consider whether such a disregard for the OSHA standards could logically be universally applied. If companies universally disregarded the OSHA standards what would happen? Employee fatalities and injuries would increase. The cost of doing business would escalate and fines by the government would significantly increase. However, businesses that have excellent safety programs and adhere to the OSHA standards enjoy considerably reduced fatalities, injuries, litigation, and expenses associated with a morally driven compliance to the standards. Increased safety has been proven with historical data from companies and corporations. So universally speaking, a disregard for the OSHA standards would be immoral toward employees, the public, and to stakeholders in each of the organizations. Finally, by considering profits over the welfare of employees, the company would not respect the employees as ends in themselves, rather the company would be using the employees as means to an end.
**Moral Integrity**

XYZ is in the midst of cyclical downturn for the demand of heat exchangers. This happens every four to eight years. Because of this downturn, the company is cutting back on its budget to protect its profits and meet its overhead. The compliance decision discussed was obviously hard to make in the wake of the current economic recession, but the right decision was made. XYZ is going to purchase all of the needed equipment and do the required modifications to the building such as a changing room so that it will be compliant with the Chromium VI OSHA regulation. The management team always truly cared about its employees but other factors clouded the morally correct decision at times. These decisions become cloudy when moral principles are lost in the discussion of maintaining company competiveness and maintaining profit. If the company were to be featured on the 6:00 news regarding its Chromium VI program, it could be confident that the decisions the company made would reflect positively on the company’s reputation.

**Conclusion**

Although the company made the right choice for its employees, the company took a step back in its ability to compete head to head, compromising its margin. The company must decide in the wake of its decisions how to deal with the unethical nature of its competition. Many companies will shortcut on quality, employee programs, and safety. Cheating and greed unfortunately are often bad concomitants of capitalism. XYZ must begin by educating its customers and potential customers of the liabilities they could be acquiring by not inquiring into the safety programs of their vendors.

Many companies that outsource to China are now learning this valuable lesson. Pet food and toys have been entering the U.S. market tainted with lead. As observed through the example
of this company, it is very easy to rationalize away ethical issues due to the need to protect profits. However, when a company spends more to protect its employees, it conceptually reduces its expenses that could have occurred if the company did not enforce a safety culture and adhere to the OSHA standards. No one can place a savings on safety until an accident occurs. If an accident occurs, it is reasonable to assume that it is too late to administer ethical compliance in that situation.
References

