Ammonia

Engineering

Task Reflection: Ammonia Project Introduction When this project was first given to us in the selected group, I admit that I wasnot ready for the challenge because of my insufficient experience in the energy-regulating field. The project was given several groups and I particularly enjoyed working with my team members. What we did first was to discuss in brief what the project entailed pointing out each member's strength and what he or she could do best. The decision to assign every member with their playing role was made unanimously with perfect contention achieved amongst the present members. The ammonia project was challenging at first, because I had overlooked it earlier in the year yet it had then faced me head on. In order to create order, we voted to have a secretary and a chairperson to help our group meetings have order and precision. The project was aimed towards the production of 450, 000 tones of ammonia gas per year. My paper is a reflective essay on the ammonia project and the lessons I learnt. Lessons learnt from the Ammonia Project We first had to understand the gas and how it could be made easily and in the desired amount that we required. Each group member had a role to play in boosting our project and we had to rely on the chairperson to guide us on the subtopics that each member would be assigned. The secretary, contrary recorded the discussions to help our group in developing the final argument that we would present for assessment. The meeting that followed decided that every individual was to pick a topic, research on it and present it during each of the meetings that we would hold. The strategy was mainly aimed at ensuring there was no dormant participant to claim our hard work. The most interesting observation that I made about my group was that everybody was contented with the decisions that we were making and this fact helped us in reducing little

setbacks that we came across. In order to produce this gas, we had to look at the chemical reaction that was involved in the production, understand why the gas was useful and eventually compile the strategy to implement our findings. In this project, I was able to learn the reaction balance as suggested by Haber that there exists condition where nitrogen gas combines with nitrogen under temperatures of 500 degrees and at very high pressure with a catalyst to produce the gas. This fact I had learnt in my chemistry class but had forgotten. The production of ammonia as I learnt produced energy and regarded as an exothermic reaction. This method was reversible depending on how one manipulated the levels of temperature or pressure. I had learnt much facts about ammonia, some of which I was earlier taught but had forgotten due to my failure to revise my facts constantly. Ammonia as we all found out in our argument had several benefits some we had failed to take seriously. The gas was to be handled carefully because it was a dangerous gas capable of causing poisoning. One of our group members suggested that the dangers of ammonia had to be overlooked because our project was based on its industrial production. With this fact in mind, it was vital that we do not take the project as harmful but consider the positive implications faced. I was then assigned to look up the benefits of the gas and present to the members during one of the week’s presentation. My group members encouraged me to take this part of the discussion for it would help me understand the project better and boost my teamwork contribution. I had to gather several techniques to collect the information that I needed to outline my points for presentation. I indeed have to learn about the uses of this gas and why this project was handed over for critic in our groups. Ammonia as I found out was essential for plant growth being used as a

fertilizer, and a source of nitrogen in agricultural industries across America. It is also used in the production of nitric acid, soda ash, cosmetics, sulfa drugs and other industrial products that involve the use of either nitrogen of hydrogen ions. The petroleum industry also applies ammonia in crude oil to neutralize acidity and in the extraction of copper, nickel when being mined from the ores. Other areas that ammonia is involved include rubber, paper, leather, medicine and food and beverage industry especially when it comes to refrigeration. When I presented my facts to my group, I set my order with lots of confidence and presented my facts straight. This exercise, as I recall, was the most interesting and enjoyable synchronizing fun and knowledge. Conclusion The Ammonia project was most important to me because it gave me an opportunity to work with my classmates. The learning process was both fun and educative for it was a project managed by our own settings. It enabled me improve on my knowledge on ammonia leading us to determine the best and fastest way to produce the gas in controlled quantities that can reduce on poisoning. The most important lesson that the team produced was the ability to work alone with minimal supervision and fewer sources from where to obtain our information. Generally, it was concluded that though a highly toxic gas, ammonia is an important gas that finds its use in several human and plant activities.