

**Using Care Ethics to Analyze the Bhopal Gas Leak Disaster in 1984**

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By

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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## **Introduction**

In December of 1984 one of the greatest engineering disasters took place. A gas leak at the Union Carbide India Limited (UCIL) pesticide plant in Bhopal, India is now regarded as one of the world's worst industrial accidents. This leak has led to the deaths of over 10,000 people and as many as half a million people were exposed to a highly toxic chemical known as methyl isocyanate. (Chandryash, n.d.) Upon further investigation into the specifics of the case it was shown that the engineers, government officials, and higher ups in corporations all had a part to play in the disaster, by ignoring the proper safety precautions that were necessary. Many scholars believe that by choosing to build such a factory near the public, the company had an obligation to be very diligent and cautious in their safety precautions for the workers and the surrounding public. (Reinhold, n.d.) The same scholars however, focus heavily on the idea that UCIL was blinded by the opportunity of amassing wealth and thus lead to insufficient planning and maintaining of the plant. This notion can be advanced further by the fact that the refrigeration system was shut down five months before the accident took place in order to reduce costs. However, this led temperatures to increase threefold. So, although the idea of rapidly trying to increase growth and revenue had a part to play in the eventual accident that took place, only viewing this case as a greedy corporation taking advantage of a corrupt government will leave society without all the details. One must also be aware of how society can hold these big businesses morally responsible for their actions.

I will examine the Bhopal Gas Leak case through the eyes of the ethical framework of care ethics. Using care ethics, I can show that UCIL can be held morally responsible for the accident that took place. Moreover, I will show this claim by fully outlining how the

sub-elements of care ethics can be applied to this incident. I will focus on how UCIL owed a duty of care to the workers in the plant and the public that lived in the town near the plant, but failed in their attentiveness, responsibility, competence, and responsiveness. (Broughton, 2005) I will also outline the concept of collective responsibility to highlight the necessity to hold a group accountable for their actions because of how difficult it can be to hold a single individual solely responsible.

## **Background**

Bhopal is one of the core cities in Madhya Pradesh and has well over a million-people living in the city. In northern Bhopal, where the factory was built the population density is very high. The idea of a new factory was very appealing to the public as well because of the many jobs that would soon follow. UCIL wanted to take advantage of the central location and the easy access to different transportation services. What initially was mainly for commercial use and to manufacture Sevin, a pesticide commonly used throughout Asia, turned into a backward integration implementation, with utilization of raw materials and hazardous materials.

(Chhabara, n.d.) The Bhopal Disaster which resulted in the deaths of 2,200 citizens overnight and another 5000 as time went on due to injuries and side effects from the poisonous gas. Once the leak occurred the infrastructure was not set in place to be able to withstand this sudden leak. The factory was not suited for it and neither was the city. The gas kept accumulating until it became a toxic cloud that spread around the city of Bhopal and impacted the respiratory systems of many of its citizens. Many people suffered from blindness, weak lungs, and other syndromes. The company eventually agreed to a settlement for 470 million dollars in 1990. (Taylor,2014.)

## Literature Review

The Bhopal Gas Leak over time has garnered the interest of scholars from all over the world due to the various circumstances that led to the disaster. Many have studied the various causes and created literary analysis to help guide the industry. They write to have the industry learn from this tragedy and work to improve their methods so such an event does not happen again. The analysis will mainly focus on how the corruption and greediness lead to UCIL mismanaging the factory and making questionable decisions that led the gas leak to occur and put the public in danger.

Eckerman goes on to explain how this case helps illustrate how the economic possibilities of the factory, the poor management from company officials, and neglect from government officials lead to the tragedy. She examines how the accident could have been prevented, how long standing effects could have been mitigated, and calls for reforms in handling outbreaks. Upon further research, Eckerman explains how the direct cause of the leak is not as intense as the examination of the many varying factors that lead to the magnitude of the disaster. (Eckerman,2005) UCIL and the Indian government were the two main parties responsible. The government allowed for the construction of the plant without fully accounting for the public and the environmental impact of such a facility. Eckerman points out how the infrastructure put in place by the government was not suited to handle an accident. The necessary safety measures, hospitals, and emergency services were not properly in place for a town that was handling such a dangerous facility. The greater issue with the government mismanaging the plant was that it simultaneously led to the UCIL to also not properly calculate their decisions as they did not have to worry about authority. Eckerman indicates that this

attitude led UCIL to take shortcuts in managing the plant, such as not testing equipment, not training workers, and poor pay. If the management policy was better there would not unhappy workers and workers would be more prepared for such a leak. She explains how the gas leak ultimately points to how the allure of money made the government and UCIL to build an unsafe factory without educating the workers and having the proper safety protocols.

Peterson analyzes the Bhopal disaster from a more consequential perspective and looks at the outcomes of the disaster from an environmental sense. Similar to Eckerman, Peterson also emphasizes that UCIL let their economic ambitions blind them into not understanding the severity and delicacy of the situation that they were in. Peterson, however, goes on to examine how the establishment of the plant was harmful to the citizens of Bhopal and the environment long before the accident even took place. Peterson elaborates how farming was the main source of income in Bhopal, so the health of the soil was highly important for the welfare of its citizens. With the establishment of the plant so close to the town it not only impacted the soil, but also polluted the air and water as well. UCIL being keen on building the factory close to the town center to cut transportation costs and neglecting the environmental hazards led to Bhopal being put in harm's way long before the disaster occurred. Peterson indicates that the public was losing their soil with their water being polluted. Peterson suggests that these side effects were clear and should have been seen by the government, but the poorly structured bureaucracy was easily convinced by UCIL. (Peterson, n.d.)

All in all, these scholars both believe the case of the Bhopal Disaster can be traced to the negligence put forth by UCIL and their tactics to minimize costs of production. Peterson decides to focus more on the environmental effects, while Eckerman brings a more holistic viewpoint

and discusses the actions taken by UCIL and the government which lead to the magnitude of the accident. While they agree that the actions that the company took are cause for concern, they do not delve deeper and examine the morality of the company's actions. Although it is hard to shift the blame on a single individual, it is important to see how UCIL acted unethically and consider the company as a larger system. I will focus my analysis on the specific actions that did not occur that can be classified as a failure to act morally and highlight the moral responsibilities corporations, like UCIL, have to the public.

### **Conceptual Framework**

The morality of UCIL's actions can be analyzed using the theory of care ethics. This type of moral theory can be used because it relates the relationship of care that the company owed to its workers and the public that it operated so closely to. Care ethics builds on the notion of being cared for and caring for those who are vulnerable and dependent. This theory at first was utilized primarily for the self and private part of life, but Carol Gilligan and Nel Noddings expanded the breath for this theory. Using the traditional moral approaches, they were able to add the "voice of care" as an alternative to the normal normative ethical theories. This ideology does not stress the general moral ways of thought and instead decides to focus on the relationships and showcasing empathy. (Sander-Staudt, n.d.) The main idea of this theory is that we owe a duty of care to those we are connected with. These relationships can be defined and interpreted differently based on the situation they are in. To define the contexts of the situations, there are sub-elements that were formed to help rigidly explain the scenarios. The sub-elements are attentiveness, responsibility, competence, and responsiveness. While attentiveness is having an awareness, and seeing that a hole that exists, responsibility is making

sure that hole is filled. It can be difficult to pinpoint where the responsibility should go, since on some occasions it cannot simply be placed on the shoulders of an individual. In these scenarios, the many hands idea can be used to show that a group or organization can be held collectively held morally responsible, instead of a single individual. Competence is going through with an action and making sure the adequate care is provided. Finally, responsiveness is the idea that individuals and groups understand their stature relative to others and understand how a potential abuse of power could occur within the power dynamic. (Tronto, 1994) In what follows I will utilize care ethics and examine the case of the Bhopal Gas Leak, by establishing the relationship of care between UCIL and the community of Bhopal. Afterwards I will then incorporate the ideas of attentiveness, competence, responsibility, and responsiveness to fully measure the failure of both the government and UCIL in upholding the moral obligations that come with the duty of care and the subsequent lack of care they both gave to the public.

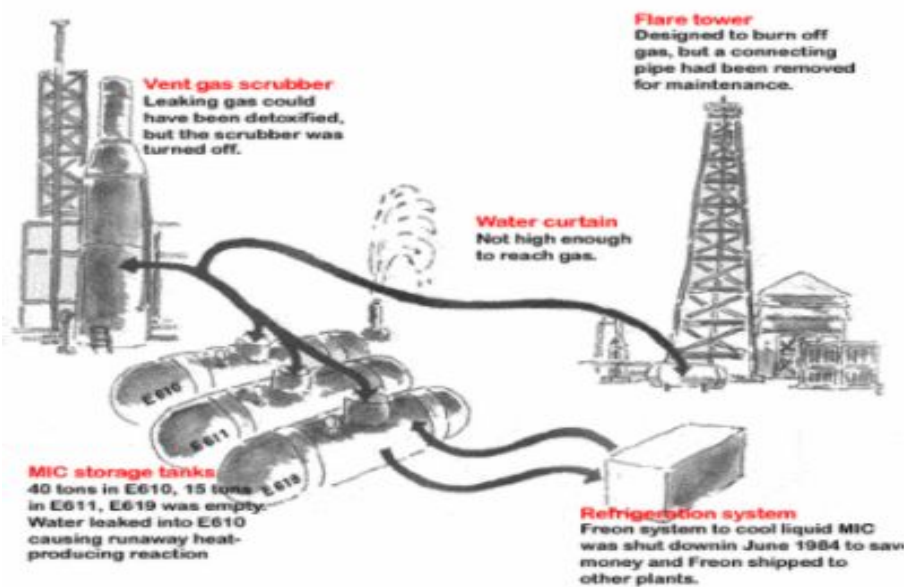
### **Analysis**

Upon further understanding of the case it is clear that Union Carbide India Limited failed to deliver the care to its workers and the community of Bhopal at large, when the gas leak occurred and killed thousands of citizens. The government also did not provide the necessary care to the people they are sworn to protect. As Joan Tronto points out when he describes the notion that everything we do is to maintain and continue our world. (Tronto, 1994) By doing this we can live in the world as well as possible and be in unison with others. UCIL and their inability to practice this care of action and care of attitude can be seen in their practices and the steps the company took with this facility starting from its conception. Based on the different definitions of care ethics, the relationship between UCIL and the community of Bhopal constitutes a

relationship of care. Where UCIL had an ability to maintain the world and prosperity of the workers and citizens of Bhopal. The following sections will be able to highlight the different areas where UCIL failed to act morally by examining the four different moral ideologies that outline care ethics: attentiveness, competence, responsibility, and responsiveness.

### *Attentiveness*

Looking through the lens of care ethics, one can see that the leak occurring was in due part to the government and UICL failing to exhibit attentiveness to the people involved. The company failed in putting aside their altruistic goals and recognized the needs of those they are impacting. UCIL, recognizing that their facility calls for their workers to handle dangerous chemicals, needed to take precautions and make sure their management was well trained. Finding ways to save money and cut corners, eventually lead to a routine of poor maintenance. Many of the security measures to prevent leaks were not operational due to a lack of checkups. (Union Carbide's Disaster n.d.)



UCIL clearly decided to put their own desire of staying alive economically over the safety of not just its workers but the surrounding public. Security such as the refrigeration system, gas scrubber, and storage



tanks were not properly maintained. The unsafe setting for the factory could be further explained because of the unqualified workers being asked to work which created an unsafe environment. (Trotter, Day, and Love, 1989) UCIL was also not being attentive to the safety of the public by building the plant itself. The pesticide and the waste produced from the factory polluted the soil and the water supply. A direct interview from a survivor named Mehboob Bi recalls an experience of learning about this pollution. “Used to give my daughters water at night to fill their stomachs. Afterwards I came to know that in many places the wells have been poisoned by that factory.” (Union Carbide’s Disaster) This anecdote further outlines how UCIL was not able to go past their own self-interest. The failure for the company to recognize the harmful nature of their activities and not adapt their management to help society showed how they have constantly failed in displaying attentiveness.

Attentiveness is the idea of being able to simply recognize the needs of those around us. It is for us to be aware and think about those around us and focus our attention on them rather than ourselves. When one begins to think from another perspective rather than their own, they are able to make different connections and thoughts. If UCIL, was able to hire qualified workers, conduct more regular tests, and distribute waste in an area further from town knowing the costs would rise and it would not benefit the company then they would be acting in favor of public safety. However, UCIL went in the opposite manner and displayed they had failed to show the attentiveness required for care ethics.

### *Competence*

The second component of care ethics that was not followed by UCIL was competence. UCIL failed to provide support that was successful and of a high standard. To be competent the

company has to put forth a real amount of effort in addressing the issues. For example, it was stated that even two years before the accident there were warnings from safety experts of a “potential dangerous release of toxic materials”. A company acting competently would in this case take measures to provide successful care to ensure this release doesn’t occur. It is important to note that the company did not make any reforms. The workers received less training and important machinery was shut down. This clearly shows how UCIL was acting negligently in regards to caring for their workers and the public, by ignoring the warning from a safety official and continuing to mismanage the branch. (Sarangi,2002) After the leak occurred and thousands were in need of help the company simply closed the factory in Bhopal and moved. There were minimal relief efforts in place and UCIL did not attempt to provide for the community that was devastated due to their actions. This is important because it outlines how the company reacted to a tragedy that has occurred. Outlining how they were not able to provide good needs to their workers before the accident and furthermore were not able to provide help for the community after the accident. Competence is an aspect of care ethics that outlines that proper response and care is needed after a need has been established. UCIL was not able to take initiative and provide care after hearing the warning for a potential leak. The company also did not do its part after the accident occurred, so it is clearly evident they have failed in showing competence.

### *Responsibility and Responsiveness*

Responsibility is yet another important aspect of care ethics that was not diligently followed by UCIL. The company failed to respond and care for the needs that came up. Did UCIL have a moral responsibility to the public to not act in self-interest and protect the community of Bhopal? Once the plant was built and toxic substances were being used, the

welfare of not only its workers but the surrounding public came into play. UCIL can be held morally responsible for the safety of the public because they chose to build the factory in such close proximity to the neighborhoods, in order to cut down on transportation costs. For example, the public who is living so close to such a factory has the right to know the types of substances being used and ensuring them about the safety of the plant. However, it is shown that the people in the neighborhood were not aware of what types of materials the plant was working with. This is important because it shows UCIL was not being responsible and helping keep the public informed and safe, when they have to deal with the arrival of a new factory. (Sarangi,2002)

Once the accident occurred the company also shied away from accepting any of their responsibility. Relocating to make it even harder for the local government to press charges. The ranking officials for the company were not speaking about the event, and tried to organize different media to tell a different side of the story. This is important because UCIL refused to take responsibility for their mismanagement of the factory and did not provide welfare for the affected community. Even years later amidst severe criticism, the company paid 470 million dollars to the city. It should be noted that upon reexamining the scenario and keeping in mind the severe damages and environmental effects this accident has had, the amount paid seems very small. (Willey,2014) Responsibility is a willingness to respond and provide care to a need. Holding yourself responsible for your actions and trying to solve issues is crucial to care ethics. In this case UCIL severely failed to accept responsibility and have failed this aspect of care ethics. In situations like this it can be difficult to hold just one single person responsible for such an event. Collective responsibility has to be used to show that several players such as executives who gave the plans, engineers who followed the plans, and government officials who blindly

gave company freedom to operate are all at fault. The problem of many hands can be applied to show the UCIL as a collective unit should be held responsible since individuals cannot. UCIL also did not follow in responsiveness. UCIL did not always think about the power structure and think about the people who are more vulnerable than the company. Farming was the main source of income and the pesticide was something UCIL controlled. They had the upper hand with the product and ability to increase the economic situation. This is key because UCIL never managed to see the power dynamic and understand the position the people are in. UCIL products were not cheap and the management of the facility harmed the soil. The public was vulnerable since they needed jobs and pesticide. This is something UCIL decided to take advantage of their position of power. It is clear that it should have seen the inequality and have taken measures to help the people with less power. Since, UCIL did no such thing I can say that they failed in responsiveness as well.

While viewing UCIL's management of the factory under the care ethics guideline, I have shown the company can be held morally responsible for the tragedy that followed, it is important to see the opposing viewpoint as well. Bisarya and Puri, however, contends that there needs to be more of an emphasis placed on the corrupt and poor bureaucracy of the Indian government. They outline how the government sanctioned the building of the plant and gave land knowing that the town may not have the resources to sustain a pandemic. Further saying how there was misleading information and leeway given to UCIL for the purpose of jumpstarting the local economy. (Bisarya and Puri, 2005) Yet it should be noted that this viewpoint fails to consider how after the factory was sanctioned it was ultimately the job of UCIL to diligently carry through the management and construction of the facility. One cannot forget it is the company

who is in charge of maintaining the plant and making sure the right safety measures are in place so the pandemic does not occur in the first place.

## **Conclusion**

I have argued that UICL can be held morally responsible for the gas leak that occurred in Bhopal by utilizing care ethics. The four sub-elements of care help detail the specific values that were lacking within UCIL. Attentiveness, responsibility, responsiveness, and competence were all not followed through, which outline that UCIL's actions are those filled with self-interest and abandoned the moral obligations they had with the community they were dealing with. Since the accident, the company has been held legally accountable to a degree and has paid fines and settlements to those affected. Since it is difficult to point the blame at a single person or situation, care ethics allows us to see where it went wrong. This is significant because the analysis helps civil engineers, government officials, and citizens understand how companies can be held morally responsible for their actions.

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