

# Hazards And Well-Being of Employees in Firework Industries

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## ABSTRACT

The current analysis is attempting to analyze the characteristics that indicate the well-being of personnel in the firework industries. The fireworks industry is one that is particularly thriving in Tamil Nadu, India, and more specifically in the region of Sivakasi. Workers in the fireworks industry face a significant number of dangers to their health and safety. The poor quality of the air has been the cause of a significant number of health problems. Due to the high-risk nature of working with fireworks, the industry that produces fireworks was compelled to develop a greater number of safety measures than other industries. But, sadly, it is difficult to identify appropriate safety and welfare measures being taken by the government for the benefit of the workers. To ensure that the fireworks sector is free of accidents, officials from both the state and the federal government should assist in the establishment of safety systems in the facilities producing fireworks in Sivakasi. Therefore, the purpose of the study is linked to the primary aim, which is to identify the safety measures that are now utilized in the fireworks sector. Because the health and safety of factory workers is of the utmost importance, the factories act stipulates that safety equipment must be given a high priority. Numerous fire disasters are occurring in the fireworks industry; thus, now is the time to identify the safety materials and prioritize the employees' health and safety..

**Keywords:** Saftety , Risk, well being, sustainability

## INTRODUCTION

The Factory Act mandates that the well-being of workers should be the top priority for every business that employs them. According to the statute, working conditions that expose personnel to danger include the presence of dust, machinery, and the absence of safety materials. If the factory can ensure the well-being of its employees, then everyone will be more pleased in their employment. Additionally, it will have an impact on the health and well-being of the staff members. Because of the numerous safety risks around fireworks, individuals may have a variety of health problems, and this will also have an effect on the way they make a living. The primary purpose of the study is to investigate the preventative measures that workers in the fireworks industry take. As a consequence of this, it is extremely important to determine and examine the reasons behind industrial accidents so that preventative actions can be taken. This method of addressing safety concerns is relevant to a wide variety of professions. The field of study known as industrial engineering focuses on the creation

of productive workplaces, pieces of machinery, and organizational plans for manufacturing facilities. Pyrotechnics, when handled incorrectly, have the potential to cause a wide range of severe injuries and consequences that can endure for a significant amount of time, including eye trauma and burns. It is imperative that you make the effort to educate yourself on how to maintain your health and happiness while in the company of fireworks businesses so as not to put yourself in danger. This study's objective is to ascertain whether or not the fireworks industry provides a safe working environment for its employees. A person is said to be "well-being" when they are unperturbed by the circumstances surrounding them. Being in a secure environment is beneficial to one's health. The state of being healthy, happy, and successful is what we mean when we talk about one's well-being..

This study is to analyze the Industrial safety and well-being of firework employees in Sivakasi There has been lot of researches that has already been taken up for the study. Sreenivasa Ragahavan (2011) in his article

captioned “Fireworks unit blast kills Two near Sivakasi”, reported that the two men were killed and four seriously injured when some chemical mixture exploded in a fireworks unit near Sivakasi in South Tamil Nadu. The accident occurred when the factory foreman went into the storage room where the chemicals were stored and opened the sacks to distribute it to the workers to make the pieces of fireworks. Sayeedul Islam et. al., April 27, 2011 found that the urban fire incidents have been determined to have a high likelihood of occurrence especially during the dry season. Although fire hazard information is available in the Fire Service and Civil Defense (FSCD), no further mentionable vulnerability or risk assessment has been performed for this hazard. As a result, fire hazard vulnerable area which is not assessed for this hazard may catch fire and cause lots of human death and economic loss. This can negatively affect the economy of the country. The role of unauthorized units situated in residential areas endangering the possibility of explosion accidents is also cautioned. Hence by planning an industrial estate the damages to buildings associated with the accidental explosions during the manufacturing of fireworks and match work products minimized (Sekar,2010).

## METHODOLOGY

The safety and well-being are important to the employees. It includes having good mental health, high life satisfaction and a sense of meaning or purpose. Well-being is something sought by just about everyone, because it includes so many positive things feeling happy, healthy, socially connected, and purposeful. Industrial safety’s main focus is employee well-being. If the safety is perfect in the industry the employee’s well-being is also perfect. The majority of fireworks industry is in Sivakasi. So the study is taken among the Sivakasi fireworks employees. The researcher has taken the study on Industrial safety and well-being of the fireworks employees in Sivakasi. In order to gather information on the effectiveness of fireworks industries researcher conducted survey among the fireworks employees. The researcher used Interview Schedule as the tool for data collection.

## RESULT AND DISCUSSION

In Sivakasi, the researcher inquired about the health and safety of those working in the fireworks industry to compile the results of the survey. The gender distribution of the respondents shows that there are 23.3% males and that there are 76.7% females. The survey question relating to the safety precautions taken by personnel in the fireworks industry was carried out by the researcher. There are no safety guards surrounding the machines, according to 56.7 percent of respondents, whereas 43.3 percent of respondents indicated there are safety guards around the machines. The next question dealt with the precautions that should be taken in the event of a fire. One hundred percent of people who responded to the survey said that sufficient safety precautions were performed after fire accidents. The next inquiry centered on the precautionary gear that was made available to the staff members. 93.3 percent of respondents have access to safety materials while they are working, whereas 6.7 percent of respondents have reported that they do not have access to safety materials while they are working. 96.7 percent of respondents believe that the building and the machines are kept in an appropriate manner, while just 3.3 percent of respondents believe that the building and the machines are not maintained in an appropriate manner. The researcher inquired about the ventilation systems in the organization. One hundred percent of respondents said that the air circulation in the workplace was satisfactory. The following inquiry was with reference to the organization of medical camps. One hundred percent of people who participated in the survey said that there is no medical camp in the business. A query was posed with regard to the health and safety of the workers at their respective places of employment. One hundred percent of those who participated in the survey stated that the first aid kit is always accessible. One hundred percent of people polled agreed that the working environment is always tidy and well-kept. One hundred percent of people polled stated that they have separate stalls for men and women in their restrooms. And this question is asked since the restroom is quite important

for them to use in order to lower the amount of stress caused by their employment. The 63.3 percent of people surveyed said they had access to restrooms, while 37.7 percent of those surveyed said they do not have access to restrooms. The researcher conducted an investigation on the preventative measures taken by the fireworks workers. The vast majority of respondents stated that they do not possess any safety equipment; hence, respondents believe that they require additional safety equipment such as gloves and face masks when working in close proximity to machinery and chemicals in the factory. And they stated that they require medical camp for a period of six months once. And they believe that in order to relax during the break period, they require access to the restroom. They also stated that the structure and the machines were maintained in the appropriate manner. These are the kind of conversations that take place between the employees and the researcher.

## CONCLUSION

Because workers in the fireworks industry routinely deal with potentially harmful materials, ensuring their health and safety is of the utmost importance to them. In the industry of fireworks, safety precautions are therefore of the utmost significance. The majority of people who work in the fireworks sector in Sivakasi are primarily residents from rural areas. They are working with chemicals, which poses a threat to both their health and their own. The Factories Act makes the promotion of health and safety in the workplace an absolute requirement. The use of safety technology, safety materials, and adequate air circulation are all necessities for safe fence. It is absolutely necessary to have a medical camp, as well as a first aid pack, sanitation facilities, and a clean environment. An evaluation of the risks present in the workplace is something that should be done there in order to improve workplace safety. It is necessary to conduct an investigation on the occurrence that took place, and it is also necessary to identify the underlying cause of the occurrence. This will ensure that the safety precautions are followed to the letter. Employees should be aware of the dangers present in the workplace, take steps to alleviate stress, take frequent breaks while they are working, and always wear protective gear that is appropriate for the work being done in the

sector. The leadership team should be champions of safety and use reinforcement in a positive way. Employees are to be inspired about safety, and the employee should be made to feel like they play an essential part in the culture of the company. If the manufacturer takes some of these issues into consideration, the employees will be able to work in an environment that is both protected and free from disruption.

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