

Buncefield disaster in uk



**ASSIGN
BUSTER**

On 15th January 2006, I and other individuals were appointed by International petroleum organization to investigate and report on the cause and occurrence of the Buncefield Disaster in UK (Oliver 2011). We have taken three years to compile the report, and thus, a comprehensive Compiled Authority Work has been done. We wish to pay special tributes to all stakeholders who cooperated with us in collection of information about the Buncefield Disaster. In addition, I wish also to thank the Board members led by Chairperson Professor Jacob Martinez and the appointed secretary Dr. Patrick Jillian for their licentious efforts and contribution to the determining the cause and impacts as well as giving recommendations of mitigating future oil disasters occurrence in our country.

Introduction

On Sunday of 11th December 2005 at around 06: 01: 32, oil spillage of one of the storage tanks of Buncefield oil station occurred in the UK causing a great explosion of fire in the area (Casimir 2008). The fire involved 23 storage tanks located at Hemel Hempstead transfer depot in the field. Massive destruction of properties was reported with over 43 casualties involved (Richardson 2008). In addition, over two thousand victims of the fire were to be relocated, and the southern part of the country suffered a great environmental pollution from the emitted smoke. After the incidence, a special team was appointed to analyze the effects and cause of the disaster.

The picture above shows the Buncefield depot after the occurrence of the incidence. It can be observed how the fire adversely destroyed the tanks, neighboring plants and buildings.

The Impacts of the Buncefield Disaster on 11 December 2005

The disaster had a lot of effects on the life of the city dwellers. Although nobody was killed, 43 fatalities were reported, who were rushed to the nearby hospital. Besides, many properties were destroyed starting with the 23 storage tanks depots, the 157000 litres of petroleum foam, and 55 million litres of waters was used to put off the fire (Harrison 2008). Moreover, the households next to the incidence were temporary damaged, and 2000 people living in the area were evacuated.

In addition, the families affected by the disaster had difficulties settling since most of their goods were destroyed by fire. Others suffered psychological diseases such as trauma due to what they saw or escaped from. The businesses in Maryland Industrial Estate were also affected as initially they had over 630 houses fully occupied and employed over 16500 individuals (Kunreuther 2009). After the incidence, the working population dropped to 9000 with over 300 houses being unoccupied. Moreover, the local authorities estimated that over 70 million dollars were lost by the small enterprises in Southern England. Some roads to the disastrous area were also closed for months, hence denying the UK government millions of pounds.

Lastly, the UK Environmental Agency program reported of an increase in level of air, water, and soil pollution (Ritchie 2009). Air pollution was caused by smoke that spread all over the Southern England atmosphere. The ground water was also reported to have been contaminated with the firefighting foam, thus endangering the life of the ground water users. Oil disruptions were also faced in the south eastern areas due to Buncefield disaster.

The recommendations we came up with are divided into two categories, the first category involves the mitigation measures on which the public and private sectors and other stakeholders, such as the government, municipalities and oil installation pipe operators can rely on to ensure that the likelihood of the Buncefield Type of Disasters do not occur in the UK in future. Category two of the recommendations involves the disaster preparedness measures that the same stakeholders mentioned above can apply to control the disaster in the UK.

The first recommendation is that the management boards of authorities running Buncefield type of businesses should device good common methods of identifying Safety Integrity Levels (SIL) requirements in accordance with the principle rules of the COMAH regulations part three of the BS EN 61511, as outlined in the Oil and Safety Measures Rules. The second recommendation is that the Buncefield oil type of business operators should regularly amend and review their management and maintenance of equipment policies so that the pipelines are replaced within the agreed time period. This is vital as it will ensure that all worn out pipes are appropriately replaced to avoid fire disaster in future. Thirdly, oil business operators need to fit in overfill integrity systems of high quality that help to reduce the over spilling of the flammable liquids such as petrol to curb re-occurrence of the disaster.

Fourthly, there is a need for fixation of an automated overfills detection and control equipment order to ensure that spillage is promptly detected and contained. This ensures that the level integrity system is achieved in

accordance with the Part 1 of the BS EN 61511 of the COMAH regulations and policies.

Fifthly, it is recommendable to have qualified engineers at the oil station ready to proof test the over spilling control system equipment's on regular basis so as to avoid any incidence of system malfunctioning. This is because it is easy for an engineer to monitor any defective equipment that can lead to the pipeline break down.

Sixthly, it is recommendable for the Buncefield type business operators to involve the equipment suppliers in the mitigation process by ensuring that they supply accredited quality equipment's. This ensures that safety and integrity level required under the Oil and Safety Acts are strictly adhered to.

Finally, we recommend the buncefield types of business operators to keep records of the pipes and other equipment's purchased, to ensure that they are timely replaced when they became outdated. Apart from that, we also recommend to the management to employ other mitigation measures that are necessary such as installation of CCTV cameras in the system. CCTV is very essential since they provide real time surveillance of the whole oil plant. Furthermore, Through CCCT it would have been easy to pinpoint the main cause of the fire in the Buncefield oil depot (Latrubesse 2010).