

**FIRE INCIDENT AT AMUL DUDHSAGAR DAIRY, GUJARAT (INDIA)**

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ABSTRACT: *Negligence and indifference are major causes of fire occurrences. The occurrence of fire will result, in some severe circumstances, in fatalities, bodily injuries, business and/or financial losses, job losses, environmental damages and asset ruins. Hence, fire is not something trivial that any responsible human should neglect. Cities are vulnerable from various natural and manmade disasters, as defined 'cities at risk'. The exposure to hazards for industries having huge amount of combustible materials used, are much higher in comparison to others. People in such areas are having very low resilience due to lack of capacity building and understanding about the possible scenario. Also, there is a serious lack of preparedness planning. The fire outbreak in DUDHSAGAR dairy is a unique example for the necessity of an articulate preparedness plan, which can minimize the loss of life and property. This study is directed towards the real time assessment of such an incident with a strong potential to point out the demand of the day.*

KEYWORDS: *Dairy fire, Urban fire, Disaster, Vulnerability.*

I. INTRODUCTION:

The Mehsana Districts Co-operative Milk Producer's Union Limited, is one of the largest Co-operative Dairy in whole of Asia and is in existence for more than last 40 years. The dairy was established on 8th November 1960. Gujarat Co-operative Milk Marketing Federation (GCMMF) has 13 dairy member unions. Dudh Sagar Dairy is one of them and it has one of the biggest dairy plants in Asia. Dudh Sagar Dairy is the second largest dairy cooperative in Gujarat and one of India's biggest, known for its brand Sagar with an annual turnover of Rs 2,200 crore. The main plant of the union is situated at Mehsana in Gujarat, having processing capacity of 20 lakh liters milk/day. The dairy has been registered under the leadership of Shri. Mansibhai Pruthviraj Patel in April 1961. He was the founder of the "DUDH SAGAR DAIRY". The Union has been awarded National Productivity Award for two consecutive years of 2004-05 and 2005-06 for the second best productivity in the large unit's category of Dairy Processing Industry.

On 3rd September 2011 early morning, one of Asia's biggest dairies, Dudh Sagar Dairy at Mehsana, an affiliate of GCMMF that markets its products under the brand name of 'Amul', was engulfed in fire killing at least six persons and injuring around 22 others. The higher authorities alleged that blast in the boiler was a reason for fire due to the leakage of gas from the pipelines passing from the cold storage tank in the plant, which was located close to the milk powder manufacturing department of the dairy.

II. HOW DID THE FIRE OCCUR:

Officials initially said a spark in one of the boilers had led to the accident. However, senior government officers involved in the rescue operation alleged that the intensity was not that of the boiler blast. There was a possibility that ammonia kept in one of the storage facilities had caught fire resulting in the accident.



Figure-1 Fire at the Dudh Sagar Dairy, Mehsana

Fire broke out in the dairy after a leakage in one of the gas pipelines passing from a cold storage tank in the plant, which was located close to the milk powder manufacturing department of the dairy. Several were injured, some of them were serious and had to be shifted to Civil hospital of Ahmedabad, while some at Apollo hospital. While other injured were admitted to city Civil hospital and Lions hospital at Mehsana. As shown in **Figure-2** for hours the fire could not be controlled.



Figure-2 Fire was not controlled even after hours

III. EFFECT OF THE FIRE:

Shops and homes within one km of the plant were shaken by the intensity of the blast. One of the shopkeeper who owns a shop located near the plant said, "My shop is 800 meters from the explosion site. Everything started shaking in the blast. I thought terrorists had attacked the town. When I came out of the shop I saw the milk plant in flames." the shops located near the plant were that affected by the blast. The shopkeepers felt as if they were attacked by the terrorists, this shows the intensity of the fire which broke out at Dudh Sagar Dairy, Mehsana. All civilians near the area felt the tremors due to the incident. Some civilians also did capture the video of the smoke that broke out at Dudh Sagar Dairy.



Figure-3 Residential area's affected by the fire

The smoke could be seen from far, the picture in **Figure-3** shows how high the smoke went and what was the radius in which it spread out. The residential areas in the neighborhood were affected by this. The smoke persisted around for quite long time.

IV. RESCUE WORK:

The official sources said, that they have asked for big cranes from Ahmedabad Municipal Corporation (AMC), so that the work of removal of debris could be expedited. The seven workers, who died in the inferno, five were identified by the officials as Kanti Chuadhary, Samir Patel, Kaushik Chaudhary, Alpesh Mistry and Dinesh Solanki. Around 22 people were said to be injured in this fire incident, and many more were found out from debris. Sources said that the dairy's management were seriously hit as two senior managers, heading the production and quality control departments, were badly injured.



Figure-4 Cold storage building collapsed

Eleven fire tenders were pressed into service to control the fire, in which, a huge cold storage building of the dairy collapsed. The **Figure-4** shows the cold storage building collapsed while controlling the fire.

V. CATASTROPHE WOULD HAVE BEEN MITIGATED :

An ex-employee of Dudh Sagar Dairy had commented on the news at a website of a well reputed news paper showing the incident of fire that occurred at Dudh Sagar Dairy, revealing about the flaws in the security and safety standard followed over there.

The employee allegedly stated, "All 07 person died & 04 seriously injured persons are my relatives as well as my best colleagues as I was safety officer in dairy before 03 years. I felt very sad. I pray to god for recovery of injured & appology who lost their family members. Remember one things. Major accident never happened directly. Its a result of several mistake, we dont take it seriously. During my tenure with dudh sagar, I had a lot of things for improvement in safety standard but unfortunately management never taken intrest in this. We hope that from learning from this major tragedy, managemnt may take HSE aspects as seriously."

This reveals the reason for the incident that occurred at the dairy. The ex-employee was safety officer at Dudh Sagar Dairy before 3 years from the fire incident that took place and the improvements for the safety were suggested but were neglected by the management as per the comment addressed above. But this negligence brought a huge catastrophe for the dairy.

VI. CONCLUSION AND REMARKS:

On 3rd September 2011, one of Asia's biggest dairies, Dudh Sagar Dairy at Mehsana, was engulfed in fire due negligence. And the help was taken from the AMC for rescue and for controlling fire. This means that there is a need to adopt the emergency response mechanism so that no such incident occurs in future and for that the HSC aspects need to be followed. Steps were taken by the government in 1960s to strengthen the emergency response mechanism. National Safety Council (NSC) of India was set up in 1966 to generate, develop and sustain a voluntary movement on safety, health and environment at the national level. Apart from conducting various specialized training courses, conferences, seminars and workshops, NSC also conducts consultancy studies such as safety audits, hazard evaluation and risk assessment, designing and developing Health, Safety & Environment (HSE) promotional material, facilitating organizations in celebrating various campaigns, e.g., Safety day, Fire Service Week, World Environment Day, etc. NSC adopted several activities based on APELL (Awareness & Preparedness for Emergencies at Local Level) processes which includes making public aware of possible hazards within the community, encouraging formulation of co-operative plans to respond to any emergency anytime, and encouraging accident prevention, among others. It is encouraging to note that concerned agencies responsible for emergency response have become innovative with new ideas at the time of emergencies. Of late, agencies of mass media have increasingly been used to popularize ideas and to spread awareness among the general population. Still, efforts are half way. The sooner the gap is bridged, the better it will be for providing safe and secure environment for the emerging economy to thrive.

REFERENCES:

- [1] <http://timesofindia.indiatimes.com/india/5-dead-22-injured-in-fire-at-dudhsagar-dairy-in-Gujarats-Mehsana/articleshow/9851381.cms>
- [2] <http://www.dnaindia.com/india/report-5-dead-22-injured-in-fire-at-dudhsagar-dairy-in-mehsana-1582974>
- [3] https://www.google.co.in/?gfe_rd=cr&ei=zug9VfihGsL08weI74HQDQ&gws_rd=ssl
- [4] <http://timesofindia.indiatimes.com/city/ahmedabad/Six-killed-22-injured-in-dairy-explosion/articleshow/9855973.cms>
- [5] https://www.google.co.in/search?q=fire+types&biw=1093&bih=534&tbm=isch&imgil=rDNFoPrRhdKXkM%253A%253Br2C9SDdnQUplBM%253Bhttp%25253A%25252F%25252Fwww.dodgepowerwagon.com%25252Fglovebox%25252Ffire-extinguisher.php&source=iu&pf=m&fir=rDNFoPrRhdKXkM%253A%252Cr2C9SDdnQUplBM%252C_&usg=__YqIXPeRvTz9tFbAZey-defu7Skw%3D#imgrc=_
- [6] https://www.google.co.in/search?q=dudhsagar+dairy+blast+images&biw=1093&bih=534&source=lnms&tbm=isch&sa=X&ei=qPg9VZrNNdK9uAS4wIGwAg&ved=0CAyQ_AUoAQ