

# Bhopal's killer plant

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Bhopal.

The story of the multinational Union Carbide, which converted Bhopal into a gas chamber on Monday, December 3, goes back to 1979 when the plant commenced manufacturing carbamates. Hazardous chemicals like phosgene, chlorine, carbomonoxyde and methyl isocyanate were used in the process.

In the earlier years most of the chemicals were imported from the parents concern in the US. But after three years they decided to go in for indigenou manufacture of the chemicals in Bhopal. The licence was issued by the Ministry of Industries and Civil Supplies Government of India on ground of import saving and self-sufficiency on October 31, 1976.

Two agreements between Union Carbide of India Ltd. and Union Carbide Corporation, US, were signed on November 13, 1973 to provide technical know-how and for the supply of plant and machinery for manufacture of MIC-based pesticides against a payment of \$20 million.

The company was also granted permission by the Reserve Bank of India to carry on its business under section 29(2)(A) of the Foreign Exchange Regulation Act. 1973.

In 1977 the carbomyzation unit started functioning. It was fallowed by the alpha-nepthal plant in 1978 which never really worked. It was only in 1980 that MIC plant was put into operation.

In the very first year itself the MIC plant started giving trouble. Every other day it used to pose a problem but the management headed by Mr Warren Woomenar, the MIC expert succeeded in getting a few people trained to operate the plant.

Minor leakages kept occurring every now and then without causing any casualty. However, on December 26, 1981, a plant operator, Mohd Ashraf, died as a result of an accidental leakage of phosgene, and three others were hospitalised. Again on February 9, 1982, there was a phosgene leak and 24 people hovered between life and death for months.

This deadly game was never really stopped. It kept on threatening the lives of those living in nearby colonies. Again on October 5, 1982 midnight, the MIC plant suffered a leak and caused panic among residents in some six colonies who experienced respiratory trouble and watering of the eyes. Thousands started running for their lives and could not return home only after eight hours.

The year 1983 witnessed two accidents in the plant. And finally came the Orwellian year, when gas struck Bhopal silently, with catastrophic effect and left in its wake 2000 corpses and tears that will take month if not years to dry.

Now when the worst is almost over, the question that readily comes to everybody's mind is why such a dangerous plant was allowed to function in the midst of the city? Was the Government not aware of the danger? The answer is, of course, yes. The Government was very well informed as also the Company people.

The matter was also raised in the state Assembly. On December 21, 1982, answering a question, the then Labour Minister said that there was absolutely no possibility of any disaster. There was no danger from the poisonous gases used in the plant. Safety arrangements were foolproof he claimed. "There has been an investment of Rs 25 crore. It is not a small stone which can be removed just like that", he said.

In 1981 the state government had appointed a one-man committee to conduct an inquiry into the accident which took the life of Ashraf. The report submitted to the Government warned that negligence in the matter of safety measures caused the death and could prove even more fatal to move the Government to take appropriate measures to stem any serious mishap in future.

In May 1982 a team consisting of three members Messers L.K., J.M. Poulson and C.S Tyson was sent to Bhopal by the parents concern to look into the safety arrangement in the plant. The report entitled "Operational Safety Survey" was really alarming. A few excerpts:

1. A number of factors make the MIC feed tank at Sevin a source of concern. They include: manual control for filling of the tank, with no instrumentation back up, creates a possibility of accidental

overfilling.

2. The flare deal pot liquid level guage glass was found valved in. It was reported that the level alarm was also sometimes unreliable. Loss of water seal in the pot could have been extremely serious.
3. The pressure guage on the phosgene tank was out of order, showing no pressure, even though tank was in service.
4. There is no fixed water spray system for fire protection or vapour cloud dispersal in the MIC operating area.
5. There were several conditions or operations in the unit that presented serious potential for sizeable release of toxic materials.
6. The procedure for unplugging phosgene vaporiser liquid level leads by blowing with temporary hooked up nitrogen lines while the vaporisers are in operation could result in backflow of phosgene if the hose or temporary lines should break loose.
7. Filter cleaning operations are performed without slipblinding process lines. Leaking valves could create serious exposures during this process.
8. Long pressure guage inlet lines without vents could result in release when the guage must be replaced, due to inability (examples: phosgene tank, phosgene converter outlet)
9. The method of installation of blind flanges on process lines valves is such that toxic materials can be trapped between the flange and valve and released when the flange is removed.
10. Leaking valves reportedly have been fairly common compounding problems noted in B, C and D above. A considerable number of valves were replaced in March 1982, but the problem still exists, though to a lesser degree. Team members observed one case in which an MIC shutoff valve was leaking so severely that even evacuation of the line above the valve was not adequate to prevent MIC release when a blind flange was removed. Valve leakage would appear to continue to be a situation that requires continuing attention and prompt correction.

The above comments made by the company's own experts team makes it quite clear that the Union Carbide people never really followed the safety rules strictly as advised.

As far as the Government is concerned, in three consecutive issues of "Rapat". Weekly in September-October 1982, I wrote about a possible explosion that could reduce all of Bhopal into a city of dead. The titles themselves very clearly suggested the possible havoc. One reads, "Sage, please save this City". The other one says "Bhopal sitting on the brink of a volcano". The last one warns: "If you don't understand, all will finish". But all in vain. Nobody really bothered.

In December 1982 some questions were raised in the State Assembly by a few members who got alarmed. The Labour Minister categorically denied any danger and declared the fears unreal.

An exhaustive report on the Union Carbide plant threat written by me with further data appeared in Jansatta, Delhi, a Hindi daily of the Indian Express Group on June 16 this year. The object was to awaken the Government from its deep slumber. The alarm fell on deaf ears.