

MAKE DOW CLEAN UP

Today, the Union Carbide plant remains essentially as it was on the eve of the December 3rd disaster. Piles of toxic waste stored above and below ground have been neither contained nor removed and continue to pose a serious threat to the health of nearby residents. Wastewater evaporation ponds 400 meters north of the factory continue to leach toxins into the soil and water. Lumps of solid carbaryl fallen from a rotten tank lie in the open air, leaking a dense tar into the ground. Elsewhere in the abandoned factory, thousands of sacks of pesticides lie in dilapidated and crumbling warehouses. Drums of Sevin tar stand exposed to the elements. The monsoons of two decades have washed them deep into the soil and polluted the underground aquifer from which 20,000 of Bhopal's citizens pump their water. Union Carbide and its owner Dow Chemical have sidestepped their responsibility to clean up its mess. The result is a massive public health crisis and the continuing suffering of thousands.



Tarry wastes leaking from old and damaged barrels.

In an affidavit submitted to the New York District Court, former Union Carbide employee T.R. Chouhan compiled a list of the chemicals Union Carbide management had dumped during the plant's years of operation. These chemicals range from heavy metals used in the plant's processing methods to solvents and fully processed pesticides. The list reveals the extent of Union Carbide's environmental impact in terms of sheer chemical wastes produced.

Many governmental and non-governmental agencies, including Greenpeace, the State Research Laboratory of Public Health, and the Citizen's Environmental Laboratory from Boston, have conducted research and studies and have consistently found alarming levels of such toxins as mercury and highly volatile organochlorine compounds (VOCs).

The wastes currently stored at UCIL will need to be transported to another location for destruction. The wastes cannot legally be transported as they are, neither within India nor internationally. Since these wastes are defined as hazardous under waste category 15 of the Indian Hazardous Wastes (Management and Handling) Rules, 1989: "wastes from manufacturing of pesticides and herbicides and residues from pesticides and herbicides formulation units", they will need to be packaged and labeled according to the guidelines for transportation of

A History of Constant Contamination

1969-77 Contaminated wastes were dumped in an open pit near the eastern wall of the factory. Wastes were stored above and below ground in an area covering 21% of the plant grounds.

1977-84 Contaminated wastewaters were moved to evaporation ponds 400 meters north of the factory. A thin layer of polythene provided surrounding farms nominal protection from contaminants. Ponds flood annually in monsoon season.

1982 Tubewells near UCIL had to be abandoned due to contamination. Cattle die after exposure to contamination from solar evaporation ponds.

1989 Carbide's own lab tests revealed soil and water samples to be toxic to fish and 21 sites within the plant were found to be highly toxic.

1990 Citizen's Environmental Laboratory in Boston identified highly toxic materials (dichlorobenzenes and polynuclear aromatic hydrocarbons) in the soil and water surrounding the plant.

1990 NEERI publishes a report claiming there is no danger from contamination but did not identify many of the peaks in the high performance liquid chromatography tests it had carried out.

1996 State Research Laboratory of Public Health Engineering Department reported serious chemical contamination in samples taken from 11 tubewells in the area. The municipal government declares 100 tubewells unfit for drinking though no alternative drinking water source was suggested or provided.

1999 Greenpeace International conducts a study that finds solid wastes, soils, groundwater samples collected within plant area to be high in mercury, organochlorine compounds and 12 volatile organochlorine compounds (VOCs). Mercury concentrations were found to be 20,000 to six million times higher than expected. They found less contamination in the solar evaporation ponds possibly due to company management burying the bottom soils beneath three meters of farm soil in 1996.

1999-2002 Soil samples, groundwater and vegetables from residential areas surrounding UCIL were found contaminated by: mercury, chromium, copper, nickel, lead, toxic organochlorines, hexachloroethane, hexachlorobuta-diene, pesticide HCH (BBHC) VOCs. These same contaminants were also found in breast milk.

9 May 2005 The central government of India asks Dow Chemical for a paltry Rs 100 crores (roughly 23 million USD), which they never gave.

hazardous wastes published by the Central Pollution Control Board in October 2004. Currently they meet none of the stipulations of this legislation.

What is Needed

So far, the plans proposed by the Madhya Pradesh State Government for the disposal of hazardous waste involve two extremely harmful technologies -- landfill and incineration. Neither one of these is a fair and effective solution to a problem that has already caused so much suffering in Bhopal.

What Bhopal desperately needs is **independent** assessment of different technologies for removal and containment of hazardous waste to ensure thoroughness and effectiveness and also to ensure that the technologies used do not pose risks to the workers involved or to the surrounding communities. The central government must provide the resources necessary to:

1. Identify specific strategies for containment and remediation of contaminated soil and ground water at different locations within and outside the factory and the Solar Evaporation Ponds. Contain chemical waste and contaminated soil from the factory premises and Solar Evaporation Landfill in suitable containers labeling each container with description of contained material and its chemical analysis.
2. Identify strategies for protecting neighbourhood population from hazards during containment of chemical waste and contaminated soil.
3. Identify specific strategies for decontaminating the Sevin and MIC plants and for conserving the structures following necessary repairs to retain them as part of the memorial to the disaster for future generations.
4. Identify strategies for shipment of contained material to the United States for disposal through appropriate methods.
5. Force Dow Chemical to pay for all assessment, containment, removal, remediation, and shipping of toxic materials left by its subsidiary Union Carbide.



Who is responsible for the UCIL plant cleanup?

In 2001, Dow Chemical was formed in a merger between Dow and Union Carbide. Dow Chemical claims that it is not responsible for Union Carbide's liabilities in Bhopal. As Union Carbide India Limited. was dissolved shortly after the 1984 gas disaster, both Union Carbide and Dow have tried to place their responsibilities on the shoulders of the Indian government. Dow claims that the Bhopal gas disaster has been remedied as far as corporate obligations are concerned. However, the 1989 settlement was for victim compensation alone. No money from Union Carbide or Dow has yet been set aside for industrial cleanup. Who will pay for cleanup if Dow does not? No one.

Dow must not only clean up the mess in Bhopal, it must take it back with it to the United States, where they can properly dispose of it. In Spring of 2003 the transnational corporation Unilever was forced to clean up 230 tons of toxic waste from a Kodai Kanal, Kerala mercury thermometer factory belonging to its subsidiary Hindustan Lever Limited (HLL), and take all 1,416 drums of it back to the United States. There is no reason why Dow Chemical cannot or should not be forced to do the same for its mess in Bhopal.

WE DEMAND that the Government of India ensure scientific assessment of the depth and spread of toxic contamination in and around the Union Carbide factory in Bhopal and make Union Carbide's current owner The Dow Chemical Company pay for the clean-up of toxic contamination and compensation for the health and environmental damage caused by reckless dumping of chemical wastes.

**This padyatra is our march for justice and dignity. We will struggle unto our last breath.
21 years is enough!**

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