Environmental Case Study
Poisoning Bhopal

Just after midnight on December 3, 1984, a thick, acrid, gas cloud rolled through the quiet streets of the industrial city of Bhopal, in central India. In the still night air, the poisonous fog crept along the ground and quietly seeped into houses where families lay asleep on mats. People awakened coughing, gasping for air, and rubbing their burning eyes. As they emerged from their houses, they joined a panicked crowd surging through the narrow streets trying to escape the toxic vapors. Some never made it beyond their doorstep. Others collapsed in the street and died where they lay. Hospitals overflowed with terrified, suffering victims, many of whom were children and older people.

The noxious gas blanketing the city was methylisocyanate (MIC), a component of the pesticide Temik, which was being made at the Union Carbide plant in Bhopal. Water had gotten into a tank containing about 40 tons of MIC and set off a chemical reaction that resulted in an explosive eruption of the toxic cloud. Control panels that should have detected rising temperatures and pressures had been shut down for repairs. Safety equipment that was designed to neutralize or incinerate the escaping gas had failed. Workers blamed management for cutting corners and creating unsafe conditions. Management blamed the staff, claiming that water must have been put in the tank by a disgruntled worker.

Morning revealed a horrifying sight. Human bodies, along with those of dogs, cats, cows, and birds, littered the streets. Whole families perished. Hardest hit was the crowded shantytown of Jayprakash Ngar, which lay just outside the Union Carbide fence. Exactly how many people were killed by the poison gas will never be known; many corpses were disposed of in emergency mass burials or cremations without documentation. Amnesty International estimates that at least 15,000 people died immediately, while 800,000 suffered medical problems, including chronic obstructive lung disease, eye injuries, immune system dysfunction, nerve damage, memory loss, cancer, miscarriages, birth defects, and impaired mental health. Families needing medical care, but without an adult able to work, were plunged even more deeply into poverty and misery.

More than 20 years after this catastrophe, which was probably the greatest industrial disaster in history, no one has been punished. Most of the $470 million in compensation that Union Carbide paid to the Indian government has yet to be distributed to the victims. The Bhopal tragedy has, however, served to alert us to the environmental health effects of air pollution and the risks inherent in manufacture, storage, and use of highly toxic industrial chemicals.