

## ERIC MARGOLIS



# Bhopal tragedy a deadly lesson

**I**n almost every house there was a dead body," said a horrified Indian official. Methyl isocyanate gas, leaking from a Union Carbide plant in Bhopal, India, had spread a deadly miasma over 25 square miles. In one brief hour, 2,000 people reportedly died and 50,000 were injured.

This tragedy, the world's worst industrial accident since World War II, highlights four converging chemical dangers:

●**Cheap Weapons** — Methyl isocyanate, and other pesticides, are functionally similar to the military gas hydrogen cyanide and the nerve agents VS, soman and sarin. Phosgene gas, used extensively in World War I, is a principle component of methyl isocyanate.

All of these agents, agricultural and military, attack the lungs and nervous system, causing the victim to drown in his own body fluids or to cease breathing. The only real difference is that insects are harder to kill than humans.

Last March, Iraq stunned the world by showering advancing Iranian troops with blistering agents and nerve gas produced in pesticide plants supplied by Germany and Britain.

If Iraq could turn pesticides into frightful weapons of war, so could many other Third World nations. A supply of chemical raw materials, a laboratory and a few technicians are all that is necessary to produce cheap, devastating weapons. Sprayed on Third World troops, without adequate protective gear, such toxic agents would produce death, serious injury, blindness and panic.

Crude as they may be, do-it-yourself chemical weapons are an attractive alternative to enormously expensive, complex nuclear weapons. Used correctly, they are also almost as efficient.

Iraq's "discovery" has spurred many other nations to develop their own chemical arms, among them Taiwan, China, Argentina, Israel, Iran, India and the Koreans. Some of them are using commercial pesticide plants to produce toxic agents. Recent efforts by Western suppliers to curb exports of raw materials used in such weapons is proving unsuccessful.

Pesticides, made from readily available chemicals, are essential in the Third World. Limiting their use would bring about massive infestations leading to crop failures and famine. Stopping chemical exports would be akin to halting export of steel because it is used to make arms.

●**Terrorism** — Even more alarming, deadly chemicals may be freely purchased in agricultural supply depots and even hardware stores. Almost anyone with some technical skill can thus assemble a rudimentary, but still effective, chemical weapon.

**T**errorists, madmen, and would-be extortionists worldwide cannot have failed to note the lesson of Bhopal. To take one example, a terrorist armed with a small canister of nerve gas could easily feed it into the air-conditioning system of a modern, windowless office tower. The results can be imagined.

Airports, subways, government offices, schools — all are dangerously vulnerable to chemical attack. Since the object of such outrages is to cause maximum fear, chemical weapons are even better than bombs: They burn, cause terrible injuries and blindness.

●**Chemical War** — The Bhopal disaster gives us a faint inkling of what would befall civilians in the event that chemical weapons were used in wartime. Russia has a massive 100,000-ton stockpile of chemical agents. Soviet military doctrine, as witnessed in Afghanistan, calls for its employment as a *normal* part of offensive operations.

Some NATO troops have protective gear against chemical attack. But civilians do not. In densely populated Western Europe, civilian casualties in any chemical assault would be enormous. Tens of thousands of choking, dying, burned or blinded people would overwhelm medical facilities and clog roads. Compared to this grim scenario, the Bhopal disaster would be a minor incident.

●**Ecological Poisoning** — Until a viable alternative can be found to the use of agricultural pesticides, it will be impossible to deny their use by the Third World — and the resulting spread of chemical warfare capability.

Yet, this is not the most serious risk. A mounting tide of medical evidence frighteningly suggests that our food supplies and water — worldwide — are being rapidly poisoned by insecticides. Each year, the concentration of these toxins in the food chain grows; some scientists fear we may be nearing saturation by the year 2000.

Today, it is almost impossible to eat food or drink water that is not tainted, to some degree, by the very pesticides that are suspected as a growing cause of cancer. No one is yet sure at what precise level of concentration these toxins may become active and deadly. The limit appears to be fast approaching.

Awesome industrial accidents like Bhopal have been and will likely remain a rarity. But Bhopal should serve as a stark warning that dousing the soil with deadly poisons cannot long continue. Some alternative to insect control must be found — and quickly.

Ancient Romans may have hastened their decline, historians say, by poisoning themselves through the use of lead pipes and utensils. We may be doing the very same thing to ourselves.

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