

4.0 Historic Review of Some Recent "Unusual Events"

4.1 Methyl Isocyanate; the Bhopal Tragedy, 1984

During the night of December 2-3, 1984, methyl isocyanate, an intermediate chemical in the production of the insecticide carbaryl (Sevin), escaped from a ruptured tank. About 2,500 people were killed, and 50,000 to 60,000 seriously affected. About 150,000 persons suffered damage to lungs and eyes. The technical details of the manufacturing process, the various aspects of how the explosion of the methyl isocyanate tank could occur, and the medical and environmental effects have been discussed in detail by J.M. Dave (1985). The animal death toll was equally large, and all broad-leaved trees suffered maximum damage.

From the very beginning of the tragedy, there was little doubt as to the principle event (i.e., the explosion of a tank filled with methyl isocyanate). It is interesting to note, however, that debate of the precise mechanisms which caused the widespread death and damage to health is still going on. Numerous hypotheses have been advanced, and at times it appears that one has lost sight of the actual, instant tragedy that occurred on that December night. It may be worthwhile to remember this in the case of novel chemical weapon use.

4.2 Carbon Dioxide from Lake Nyos in Cameroon, 1986

On August 21, 1986, Lake Nyos in Cameroon erupted with a loud rumbling noise. A cloud of vapour and smoke, 50 metres high, burst out of the lake and flowed 16 km down into surrounding valleys. More than 1,700 people were killed instantaneously, and the carcasses of over 3,000 cattle and innumerable other animals littered the area the following morning.