Press Release No. 87/2009

Press Relations Officer: Martin Ittershagen
PR-staff: Anke Döpke, Dieter Leutert,
Fotini Mavromati, Theresa Pfeifer, Martin Stallmann
Address: Postfach 1406, 06813 Dessau-Roßlau
Telephone: +49 340/21 03-2122, -2827, -2250, -2318, -3927, -2507
E-Mail: pressestelle@uba.de
Internet: www.umweltbundesamt.de

Umwelt Bundes Amt
Für Mensch und Umwelt

25 years since Bhopal chemical accident: mistakes that may not be forgotten

Federal Environment Agency applauds progress in international chemicals management and urges continued caution

On 3 December 1984, a catastrophic chemical accident occurred at the Union Carbide India Ltd plant in Bhopal, India. Due to numerous defects, errors and the failure of safety systems, a 20-to-30-tonne gas cloud of the highly toxic intermediate chemical methyl isocyanate escaped into the atmosphere. In the first week the human death toll was at least 2,500 plus 500,000 seriously injured. Even years later, there are up to 50,000 people left handicapped, and the local mortality rate is high. At the time of the accident the population of Bhopal was around 700,000, of which about 130,000 lived in the immediate vicinity of the factory. The accident is the worst industrial disaster in history. "The price of industrial disasters such as that in Bhopal is so high that its lessons may not be forgotten. In Germany and Europe we must also review with a critical eye whether we are taking adequate safety precautions at our chemical installations", said Jochen Flasbarth, President of the Federal Environment Agency (UBA).

The Bhopal accident triggered a number of reactions around the globe to make chemical factories safer. On account of even earlier hazardous accidents such as that in Seveso, Italy, in 1976, Germany created far-reaching installation safety legislation in 1980 through the Hazardous Incidents Ordinance, and the EU introduced industrial safety regulations with the Seveso Directive in 1982. The Hazardous Incidents Ordinance demands that a stringent safety scheme be in place to avoid accidents or to contain their impact if they occur. Systematic safety analysis testing of industrial production processes and installations are standard nowadays.

This progress has been undergirded by reporting obligations called for in the European Chemicals Regulation REACH, which stipulates that chemicals producers must also register intermediate products with the European Chemicals Agency. Methyl isocyanate, which was to blame for the disaster in Bhopal, is one such chemical.

Businesses in the industrialised nations must also assume responsibility for the safety of their chemical plants in lesser developed countries, where safety standards may not be lower than those in Europe or North America. The Organisation for Economic Cooperation and Development (OECD) and the United Nations Economic Commission for Europe (UNECE) have

developed guideline documents for this purpose which state that any investments made abroad must meet the same safety standards as those in industrialised states. This also applies to German companies, but whether or not the recommendations are always taken up has not yet been verified.
The tighter network in international chemicals production demonstrates just how important international safety standards in chemicals production are. Lax standards may not become a competitive advantage. International agreements on chemicals management also extend obligations to the industrialised nations. For instance, the Rotterdam Convention (Prior Informed Consent Procedure = PIC) states that hazardous chemicals may only be exported to a recipient country with accompanying information about their impact on human health and the environment and on condition of prior consent. The Federal Environment Agency provides support through expertise and information on the continued development of this convention.
The Federal Environment Agency believes that safety in chemicals production must be made even better. Experience gained from the disaster in Bhopal must be taken more into account, for example by:
extending the ban on use of hazardous substances or reducing the stocks in storage or circulation,
assuring that the planning procedure for land use takes into account that accidents with hazardous substances may not affect human settlements, as is called for in § 50 Federal Immission Control Act (*BImSchG*) but not always adequately considered;
providing environmental authorities and operators with adequate staff numbers to cope with surveillance, operation and servicing of installations.

Further information:
Annual reports as per Germany's Hazardous Incidents Ordinance on accidents that must be reported: http://www.umweltbundesamt.de/zema/download.html
Data sheets on individual accidents registered in Germany (in German):
http://www.infosis.bam.de/
Information of safe chemicals management:
http://www.umweltbundesamt.de/chemikalien/pops.htm
Call for adoption of global safety standards: OECD Guiding Principles for Chemical Accident Prevention, Preparedness and Response, OECD 2003 Chapter16 c (German):
http://www.umweltbundesamt.de/anlagen/OECD_GuidingPrinciples_Deutsch.pdf
Information on environmentally relevant properties of chemical substances and compounds for the prevention of hazards in the Joint Substance Data Pool of the German Federal Government (GSBL): http://www.gsbl.de/index.html

Dessau-Roßlau, 2 December 2009