Media Briefing

Action Plan

Environmental Remediation in and around UCIL, Bhopal

Round Table Meeting, April 25-26, 2013
Action Plan

• Developed by Expert Participants over two days of deliberations
  – Time bound and action oriented that do not pile up over those from past
  – Address the existing institutional logjam
  – Implemented through a fast track transparent mechanism with CPCB as the nodal supervisory agency
  – Involve local community from Bhopal
Immediate Measures

- Securing the site and preventing annual runoff of contaminated water (*Three months*)
  a. Fencing and guarding of UCIL site and the landfill area within the SEP to prevent access to people (*Immediate*)
  b. Stopping construction at the SEP area (*Immediate*)
  c. Measures to be taken to protect annual runoff from the site during monsoon (*Immediate*)
UCIL Site and SEP Area, As of 2009

Solar Evaporation Pond Area

Children playing at the UCIL site
Immediate Measures

- Excavation, recovery and characterisation of waste dumped at the UCIL site (Six months)
  a. Clearing of vegetation and dewatering the site (One month, post monsoon)
  b. Identification and refurbishment of a temporary storage area for the excavated waste (Three months)
  c. Excavation and recovery of dump materials from already identified and new sites (Three months)
  d. Recovery of mercury present in drains, pan filters, buried in soil with help of local community (Three months)
  e. Characterisation and inventorisation of the collected waste for proper treatment and/or disposal (Six months)
Toxic Waste at UCIL, As of 2009

Waste dump site at UCIL

Mercury found at UCIL
Immediate Measures

- Characterisation and incineration of the stored waste at the UCIL site (*Six months*)
  a. Trial at the Pithampur incinerator with 10 tonnes of similar waste from Hindustan Insecticides Limited, Kerala (*Three months*)
  b. Characterisation results of the stored UCIL waste to be made public and if required, further characterisation and inventorisation is to be done in parallel with trials (*Three months*)
  c. Waste with high calorific value and hazardous in nature to be incinerated with continuous stack monitoring; remaining waste to be dealt with suitable decontamination/remediation measures (*Six months*)
Medium-and Long-term Measures

- Groundwater contamination assessment and remediation outside the UCIL site (Two-three years)
  a. Field investigation and lab analysis of the groundwater (One year)
  b. Possibility of hydraulic containment to be explored as an interim measure (Six months-one year)
  c. Remediation/containment plan to be developed and implemented (Two-three years)
Medium-and Long-term Measures

- Characterisation and remediation of waste dumped in landfill in the SEP area (*One-two years*)
  a. Characterisation of waste and development of a basket of disposal/decontamination/remediation methods (*One year*)
  b. Disposal/remediation of the waste and decontamination of the landfill area (*One-two years*)
Medium-and Long-term Measures

- Remediation of the entire SEP area (*Three-five years*)
  a. Assessment of the need of geo-hydrological and contamination analysis based on previous reports (*Three months*)
  b. If required, SEP to be studied for waste characterisation and source of contamination (*One year*)
  c. Development and implementation of remediation plan keeping residential purpose in mind (*Three-five years*)
Medium and Long-term Measures

- Detoxification, dismantling and decommissioning of the UCIL plant, machinery and structure (*Two years*)
  a. MIC plant including the vent, vent scrubber, storage tanks and control room to be strengthened and preserved (*Two years*)
  b. Remaining parts of the site to be decontaminated, dismantled and decommissioned as suggested by the IICT (*Two years*)
Plant and Machinery, As of 2009

Vent Gas Scrubber at UCIL

Plant Machinery at UCIL
Medium and Long-term Measures

- Remediation of the UCIL site (*Three-five years*)
  a. Geo-hydrological and contamination studies based on stratified judgmental sampling (*Two years*)
  b. Development of a basket of decontamination/disposal methods accordingly (*Two-three years*)
  c. Remediation plan based on findings and future use as memorial and centre of excellence (*Two-three years*)
  d. An international workshop/competition on master planning for conversion of the site (*One year*)
  e. Implementation of the remediation and conversion of the site to a memorial and center of excellence (*Three-five years*)