CHARTER ON CORPORATE RESPONSIBILITY FOR ENVIRONMENTAL PROTECTION IN FERTILIZER INDUSTRY

ACTION POINTS

1.1.1 Wastewater management

1. Efforts will be made for conservation of water, particularly with a target to have consumption of water less than 8, 12 and 15 m^3/tonne of urea produced for plants based on gas, naphtha and fuel oil respectively. In case of plants using Naphtha and Gas both as feedstock, water consumption target of less than 10 m^3/tonne will be achieved. An action plan for this will be submitted by June 2003 and targets will be achieved by March 2004.

2. Use of arsenic for CO_2 absorption in ammonia plants and chromate based chemicals for cooling systems, which is still continuing in some industries, will be phased out and replaced with non-arsenic and non-chromate systems by December 2003. In this regard, action plan will be submitted by June 2003.

3. Adequate treatment for removal of oil, chromium (till non-chromate based cooling system is in place) and fluoride will be provided to meet the prescribed standards at the source (end of respective process unit) itself. Action plan will be firmed up by June 2003 for compliance by March 2004.

4. Proper and complete nitrification and de-nitrification will be ensured, wherever such process is used for effluent treatment by September 2003.

5. Groundwater monitoring around the storage facilities and beyond the factory premises will be carried out at regular intervals particularly for pH, fluoride. CPCB will finalize the guidelines for groundwater monitoring by December 2003.

6. No effluent arising from process plants and associated facilities will be discharged to the storm water drain. The quality of storm water will be regularly monitored by all the industries.

7. Industries where water/effluent flows through the storm water drains even during the dry season will install continuous systems for monitoring the storm water quality for pH, ammonia and fluoride. If required, storm water will be routed through effluent treatment

plant before discharging. An action plan will be submitted by June 2003 and necessary action will be taken by June 2004.

1.2 AIR POLLUTION MANAGEMENT

1. All the upcoming urea plants will have urea prilling towers based on natural draft so as to minimize urea dust emissions.

2. The existing urea plants, particularly, the plants having forced draft prilling towers, will install appropriate systems (e.g. scrubber, etc.) for achieving existing norms of urea dust emissions. In this regard, industries will submit action plan by June 2003 and completion of necessary actions by June 2004.

3. The sulphuric acid plants having SCSA system will switch over to DCDA system by March 2004 to meet the emission standard for SO_2 as 2 kg/tones of H_2SO_4. An action plan for this will be submitted by June 2003.

4. Sulphuric acid plants having DCDA system will improve the conversion and absorption efficiencies of the system as well as scrubbers to achieve SO_2 emissions of 2 kg/tonne of acid produced in case of plants having capacity above 300 tpd and 2.5 kg/tonne in case of plants having capacity upto 300 tpd. An action plan will be submitted by June 2003 and emission levels will be complied with by September 2004.

5. Stack height for sulphuric acid plants will be provided as per the guidelines and on the basis of normal plant operations (and not when the scrubbers are in use) by June 2003. The scrubbed gases are to be let out at the same height of the stack.

6. An action plan for providing proper dust control systems at rock phosphate grinding unit in phosphoric acid plants/single super phosphate plants, so as to achieve particulate emission levels of 150 mg/Nm^3 will be submitted by September 2003 and complied with by March 2004.

7. Particulate as well as gaseous fluoride will be monitored and adequate control systems will be installed by June 2004 to achieve the norms on total fluoride emissions (25 mg/Nm^3).

8. Continuous SO_2 emission monitoring systems will be installed in sulphuric acid plants (having capacity 200 tpd and above) by March 2004. Action plan for this will be submitted by March 2003.

9. Regular monitoring of ambient air quality with regard to SO_2, NO_x, PM, SO_3, fluoride and acid mist will be carried out.

1.3 Solid waste management

1. Gypsum will be effectively managed by providing proper lining, dykes with approach roads and monitoring of groundwater quality around storage facilities. Accumulated gypsum will be properly capped. In this regard, action plan will be submitted by June 2003 and for compliance by December 2003.

2. An action plan for proper handling, storage and disposal of spent catalyst having toxic metals will be submitted by June 2003 and implemented by September 2003. The industry will explore recovery/buyback of spent catalyst by September 2003.

3. Carbon slurry, sulphur muck and chalk will be properly managed and disposed of in properly designed landfill either within premises or in common facility. Action plan on this will be submitted by June 2003 and implemented by March 2004.

4. Existing stock of chromium and arsenic bearing sludge will be properly disposed of by December 2003. Industries will also explore recovery of chromium from the sludge. CPCB will provide guidelines for proper disposal of sludge.