* Current status will be available after the review meeting.

Monitoring of Pollution levels & abatement measures in 24 critically polluted areas

Sl. No.	Problem Area	Environmental Issues	Status/ Action Points
1	Angul – Talcher*, Orissa	 Water contaminated with heavy metals which is being used for drinking by the South Eastern Coal Fields employees and villages for over a few decades. Air pollution due to high levels of SPM and SO2 in the ambient air. Contamination of groundwater by fluoride. Waters of Nandira and Brahmani rivers are not fit for direct consumption. Solid waste disposal comprising of spent pot linings from NALCO smelter. Ecological degradation of the mined area due to open cast mining. Increasing incidence of bronchial and respiratory disorder in the area. 	 NALCO's Captive Power Plant : Ash-pond system for mgmt. of flyash and bottom ash, ETP for recycle of ash-pond effluent supernatant - zero discharge system is being maintained with re- circulation. ECS are ESPs ; SPM norms of 150 mg/l being met; NALCO's Aluminium smelting unit: There is no process wastewater discharge from the plant. The unit is meeting CREP agenda; NTPC Talcher Super Thermal Project, Kaniha : . Industry to complete and commission effluent recycling pumps of 2nd stage ash-pond and to achieve zero discharge; Stowing of ash into abandoned mines being explored / done in Talcher region ; Due to fluoride contamination about 17 villages water supply was jeopardized and the same was rectified by providing drinking water supply to them (as per SPCB);

 CPCB has identified <u>three</u> polluted stretches in Orissa on Rivers Ib, Brahmani & Mahanadi with BOD > 6

mg/l which is being followed up by NRCD;

 As per status of pollution control for industries discharging effluent into rivers & lakes under the pgm. Grossly Polluting Industries (> 100kg per day) Orissa PCB has identified 20 units of which only two were defaulting.

- 2 Ankleshwar, Gujarat
- Two industrial estates – Ankleshwar Industrial Estate & Panoli Ind. Estate (more than 1500 varied industrial units such as chemicals, dyes & intermediates, pesticides, fine chemicals, pharmaceuticals, pulp & paper mills, textile, plastic & engineering, comprising of large, medium & SSI units)
- Estimated industrial water consumption 26 mld and wastewater generation 18 mld.
- Hugitive emission, particularly organic fumes problem.
- Conversion of industrial units, proposing to install one stage incinerator to two stage incinerator.
- Assessment and monitoring of

- Inventorization completed for industrial units having individual pollution control facilities generating hazardous/ toxic waste requiring incineration/ cannot be incinerated.
- Identification of site for development of common TSDF has been done.
- 1 MLD CETP plant in operation, treated effluent is discharged into R. Narmada.
- Wastewater management consists of well defined drainage network spread over the entire GIDC estates in 4 phases for collection & conveyance of effluent to final pump house, effluent disposed into the Amla Khadi drain.
- As per CREP's initiative most of the dye & DI units in Gujarat are complying, for the rest action is being taken by the SPCB;
- MoEF / CPCB is encouraging common treatment facilities in industrial estates in the

Hazardous Air Pollutants (HAPs).

- Safe disposal of HW
- Compliance of HWM Rules 2003 for scrap management.
- Usage of cleaner fuels in the estate

state – wherein 6 TSDF sites have identified

 As per status of pollution control for industries discharging effluent into rivers & lakes under the pgm. Grossly Polluting Industries (
 > 100kg per day) Gujarat CPCB has identified 17 units of which five are closed, 1 unit is defaulting & remaining 11 units meeting norms as on December 2006;

- 3 Bhadravathi *, Karnataka
- Water and air pollution from M/s Mysore Paper Mills Ltd. in terms of carry over of fibre along with effluent, black liquor and emissions from the boiler.
- Water and air pollution from M/s Visveswaraya Iron and Steel Ltd. The major pollutants include cooling water discharges, emissions from the arc furnaces, fugitive emissions from the electricallyheated ferrosilicon furnaces and slag from the blast furnaces.
- Air pollution from the lime kiln.
- Water pollution dur to untreated sewage disposal from Bhadravati town.
- Lack of regular air qualityu monitoring

- The two large industrial units have taken necessary steps to implement the CREP's points and the progress of implementation is being monitored both by CPCB under ESS pgm &by SPCB;
- The industrial activity is not very high in this region . However there are two CETPs commissioned in Karnataka to tackle effluent from industrial clusters ; besides two TSDF sites have been identified by the state for disposal of HW ;.
- CPCB has identified polluted stretch at d/s of Malleshwaram on R. Bhadra receiving industrial effluent from Bhadravathi and action plan with NRCD / NRAP;
- Out of the 20 grossly polluting industries (GPI) units 10 are complying, 3 units are defaulting & 7 units are closed as of Dec'2006.

arrangement, specially from the point that there is a wild life sanctuary nearby.

- 4 Bollaram-Patancheru *, A.P.
- Water pollution due to discharge of untreated or inadequately treated industrial effluents by the industries involving production of Organic and Inorganic chemicals, paints, pesticides, petrochemicals, cellulose, and other products.
- Water pollution due to discharge of untreated effluents from small scale drugs and pharmaceuticals units.
- Water pollution due to non-existence of trunk sewers for transportation of industrial effluents to CETP, as well as operation and maintenance of the CETP.

- Three CETPs commissioned in the region - Bollaram (now non-operational), Jeedimetla & Patancheru;
- CPCB has promoted waste water segregation & corresponding treatment in member units in order to meet influent stds of CETP;
- The final treated effluent from CETP goes to Isakavaagu which meets R Manjira after several kms.
- There is a proposal to dispose all treated effluent from CETPs to the Hyderabad sewerage network to be finally treated with domestic sewage (from BHEL township)i.e move from common treatment to combined treatment of waste water.
- Units discharging > 40kld effluent are to install secondary treatment before sending to CETP;
- One operational TSDF unit in Dindigul (Dt Rangareddy)

Out of the 39 GPI units 16 are complying, 17 units are defaulting and 6 units are closed as of Dec'2006.

* Current status will be available after the review meeting.

5 Chembur, Maharashtra • The creek flowing through Chembur is

• Chembur was identified as 'critically polluted area' in heavily polluted particularly with respect to oil and grease, suspended solids, BOD and ammoniacal nitrogen.

- High levels of SO2 and NH3 in the ambient air.
- Indiscriminate disposal of solid waste by the industrial units.

1990 with air pollution being the dominant problem. The major industries in this area are oil refineries, fertilizer, chemical and large power generating units ;

- The four major industries in this area are BPCL. HPCL, RCF & Oswal Petrochemicals for which action plans were prepared for monitoring the status of pollution control measures in these industries. Periodic inspections with MoEF & SPCBs to these units indicate that adequate pollution control measures have been installed and the stipulated norms were being met most of the time.
- A major source of pollution in this area is due to particulate pollution (mainly SPM & RSPM) which is due to heavy movement of transportation serving the industries. A committee has been constituted to address this issue.
- New revised action plan to include source monitoring for compliance verification as per new standards in RCF & Oil refineries, monitoring for compliance verification of FGD in Tata Power and monitoring of hazardous air pollutants in the ambient air.

- 6 Dhanbad *, Critical air quality due • Bihar to fugitive emissions arising from the open cast mining, coke oven plants, briquette manufacture, washeries, Dec. '04 : and thermal power • station, over burden dumps besides air borne dust from trucks plying • around the mining areas.
 - The River Damodar has been rendered lifeless due to effluent discharged from the numerous washeries carrying fine coal dust.

- Case of air polluting Beehive Hard Coke units in Dhanbad region notices under Section 18(1)(b) of Water & Air Act issued in
- Stowing of ash into abandoned mines being explored in Dhanbad;
- Though there are no TSDF sites in Dhanbad however two TSDF sites identified in Jharkhand for disposal of HW:
- The washeries to take necessary measures to reduce coal dust load to the R Damodar ;

* Current status will be available after the review meeting.

- 7 Digboi *, Assam
- Water and air pollution from the Digboi Oil Refinery.
- Discharge of pollutants ٠ by the refinery into the nearby Missionpara and Digboi drains.
- Air pollution due ti fugitive emissions from the refinery.
- Other pollution problems including noise from the refinery, specially due to lack of proper improvement in infrastructure and house-keeping.
- Water pollution due to non-availability of sewage disposal system.

Directions to the unit were issued to the unit in July '2000 with special mention of acid tar to be taken up on war footing as it posed a major fire hazard. The unit has taken necessary steps on this front;

- 8 Durgapur *, The main polluting units : West Bengal
 - 1. Durgapur Steel Plant
 - 2. Alloy Steel Plant
 - 3. Durgapur Chemicals Ltd.
 - 4. Durgapur Projects Ltd.
 - 5. Durgapur Thermal Power Station
 - 6. Durgapur Cement Plant
 - 7. East India Pharmaceutical Ltd.
 - 8. Indo-American Electrical (I) Ltd.
 - 9. Graphite India Ltd.
 - 10. Philips Carbon Black Ltd.
 - 11. GKW (Sankey Wheels) Ltd.
 - 12. State Dairy Durgapur Ltd.
 - 13. Ferro Alloy Industries
 - 14. Coke Oven Units Beehive type
 - Polluted river stretches

- Most of the polluting units have prepared action plans for implementation of CREP's actions points and status is being monitored both under surprise inspections under ESS by CPCB ;
- Out of the 56 GPI units 29 are complying, 4 units are defaulting & 23 are closed as of Dec'2006.
- CPCB has identified polluted stretch at Durgapur to Haldia on River Damodar receiving industrial effluent from Durgapur & Asansol and action plan with NRCD / NRAP;

- * Current status will be available after the review meeting.
 - 9 Greater Cochin *, Kerala
- Air pollution from chemical industries.
 - Water pollution due to discharge of untreated sewage into back water.
 - Generation and indiscriminate disposal of solid waste comprising pesticides, mercury, gypsum and rubber waste.
 - Air pollution due to fugitive emissions of ammonia, fluoride and
- A study initiated in
 CAAQMS to monitor
 HAPs in ambient air.
 Continuous ambient air
 quality monitoring stations
 / analysers (CAAQMS)
 installed in FACT Cochin;
- Out of the 36 GPI units 18 are complying, 11 units are defaulting & 7 units are closed as on Dec'2006.
- There are no commissioned TSDF or CETP sites however one

chlorine.

- Air pollution due to high concentration of SO2, ammonia and fluoride in the ambient air.
- Groundwater pollution due to discharge of high concentration of fluoride.
- Vehicular pollution due to 70,000 vehicles running in Coachin area.

TSDF site has been notified for HW ;

10 Howrah *, West Bengal

- 11 Jodhpur, Rajasthan
- The main problem identified was air pollution arising out from the emissions from metallurgical units (namely forging, foundry and re-rolling, galvanizing mills) wherein coal was being used as the fuel.
- Fe problem in GW
- There are around 300 industries in the area which are mainly textiles, dye & dye intermediates and steel rolling mills.
- The industrial effluent along with the domestic effluent is discharged into Jajori river which is a major source for charging wells.
- Water in the well is reported to be coloured and has high concentration of TDS

- A survey conducted by CPCB on the foundries operating Howrah showed that most of the units have installed ECS;
- A study on GW concluded that the presence iron problem in GW was due to hydro-geology conditions of the sub-strata;
- Most of the action points have been complied with.
- Newly commissioned CETP to be monitored.

and heavy metals.

- 12 Kala Amb, Himachal Pradesh
- Water and air pllution from /s Ruchira Papers Limited.
- Water pollution due to uncontrolled discharges from M/s Ogli Paper Ltd., M/s Kanwar Paper (P) Ltd. and M/s Jagat Metals.
- A large number of industries identified in the Action Plan have either closed or complied with the stipulated standards, except for the pollution caused by M/s Ruchira paper Mills.
- In consideration of the pollution potential and the area being significant in terms of Inter-State pollution issues, following action points shall be strictly complied with :
- M/s Ruchira Paper Mills shall ensure Installation of Chemical Recovery Plant (CRP). They shall also ensure switch over to 100% waste Paper based process and submit time targeted Action Plan for this switch over, in case they are not able to install CRP.
- Regular Monitoring shall be undertaken for river Markanda to judge the impact of pollution and efficacy of pollution control measures taken by M/s Ruchira Paper Mills.
- Efforts shall be made to ensure interception and treatment of Municipal Sewage from Kala Amb before its disposal into river Markanda.

- 13 Korba, Chattisgarh
- Air pollution due to high emission of SO2 and SPM levels.
- Air pollution due to the thermal power plants. It is estimated that around 50,000 tonne of coal is consumed by these plants every day therby gerating ash in the order of 21,000 tonne per day. It is estimated that 183 tonne of SO2 is emitted in the atmosphere every day.
- Significant solid waste generated in Korba area is fly ash from thermal power plants, red mud, potroom linings and spent cryolites from BALCO and overburden soil from coal mining.
- Groundwater pollution due to high level of fluoride, zinc and iron.
- Disposal of solid waste.

- All large & medium industries that have been identified in the Action Plans in the existing problem areas should incorporate the status of CREP and Task Force Recommendations on the last available inspection report. This shall be highlighted in the revised action plan.
- A status paper on back filling of coal mines with flyash (dry or wet form) to be prepared in consultation with the concerned State Governments. A list of mines that have been declared as abandoned to be sought from the Department of Mines
- Status & proposals of flyash utilization & management by each of the Thermal Power Plants in the problem Area required .
- Ash pond over flow should be recirculated
- There are 44 AAQ stations in the region besides three maintained by SPCB. Networking of all the stations should be made after properly calibrating the instrument.
- BALCO
- Fluoride mass balance
- Secured Land filling
- Old unit of BALCO to switchover to Pre baked Technology
- 2 categories of Hazardous waste generation (categories 5.2 & 36.3) not included in HW

authorization

• A joint survey to be conducted to finalize revised action plan for Korba

- 14 Manali *, T.N.
- Contamination of groundwater by fluoride, nitrate and faecal coliform, rendering it unfit for drinking in many areas of Manali.
 - The areas is saturated with industries generating hazardous wastes.
 - Water pollution due to inadequate treatment of domestic sewage.
 - Water pollution due to direct discharge of ash slurry from the Ennore Thermal Power Station.
 - Generation of solid waste containing mercury, chromium and oil bearing waste and their indiscriminate disposal in adjoining areas causing of environmental problems.

- Most of the units have submitted action plans for implementing pollution abatement points agreed to in the CREP program and the status of implementation is being monitored.
- A study initiated in CAAQMS to monitor HAPs in ambient air. Continuous ambient air quality monitoring stations / analysers (CAAQMS) installed in four industries;
- Though there are no TSDF sites in the region however the three TSDF sites identified by the state for disposal of HW;
- The State Govt. has conducted studies on the issue of Buckingham Canal ;
- * Current status will be available after the review meeting.
 - 15 Mandi-Gobindgarh, Punjab
- Air pollution including fugitive emissions from rerolling mills, induction furnaces, arc furnaces, cupola furnaces and forging industries.
- Water pollution due
- The Problem Area Mandi Govindgarh shall also include industries in Khanna area
- A study to be taken up to estimate environmental carrying capacity for major air and water pollutants in above areas

to absence of sewerage and sewage treatments facilities.

- Detailed inventory of the air and water polluting industries in Mandi-Govindgarh and Khanna area, to be compiled.
- Efforts shall be made to control fugitive emissions from Re-Rolling Mills and Induction Furnace.
- One AAQM station at Mandi-Govindgarh and two in Khanna area shall be established at appropriate locations by PPCB.
- Regular Monitoring of groundwater shall be performed in pre- and post monsoon season at locations decided to appropriately represent the actual conditions.
- The three Lead units in Govindgarh area shall be monitored for the status of pollution and control measures.
- In consideration of appreciably high concentration of RSPM, characterization / source apportionment of RSPM shall be carried out.
- Possibilities shall be explored to use the slag from furnace , in Cement industries
- A Time Targeted Action Plan is being prepared.

- 16 Nagda-Ratlam,MP
- Twelve industries Nagda identified under the Action plan for

Ratlam Area;

- Four units identified in Nagda of which GRASIM is major polluting unit (mainly carbon disulphide emissions).
- Industry is storing mercury bearing sludge in land fill site (constructed in 1984). The study to be conducted for safe capping of land fill so that the GW movement of mercury horizontally can be reduced.
- Piezometric wells to be provided ;
- CREP recommendations to be implemented;

Grasim Industries

- To monitor the CS2 & H2S in spinning mills and assess the material balance. To monitor the ambient CS2 & H2S levels.
- To include CS2, H2S, CL2 and Hg in three ambient air quality monitoring stations operated by MPPCB at NAGDA,
- To include monitoring of TDS, Sulphates and mercury at down stream R Chambal in the MINARS network

Ratlaam

- Most of the industries in Ratlam area are closed for 7-8 years. There is no record of sludge & chemicals stored within the premises.
- HW sludge being stored in the premises. Suitable action to be taken against the industries (2 H-Acid and 2 Pharma after joint inspection with SPCBs) for containing pollution from these Four

industries. Ratlam to be included in the contaminated site list - Status report to be prepared with SPCB. To assess the contaminated site.

• Ground water contaminated in 10 villages due to discharge of untreated waste.

17 Najafgarh Drain Basin Area Najafgarh Drain Basin has an area of 832 sqkm having mostly small SSIs

- The Najafgarh Drain Basin • Area was initially considered as one of the critically polluted areas wherein all the 22 drains discharging directly into the Najafgarh Drain were to be tapped by installing STPs. As the environmental issues pertaining to Delhi have increased over the last decade, it was felt that more issues need to be encompassed. Hence the review committee felt a need to extend the jurisdiction of the action plan.
- A fresh project proposal covering all environmental related issues pertaining to Delhi was suggested to be prepared by DPCC giving time bound action plan.
- Co-ordination on this problem area wih DPCC
- The action plan received from DPCC shall be forwarded to MoEF.

18 Vellore (North Arcot) * , T.N.

> This region was identified as problem area 'North Arcot' however after the bifurcation of the North Arcot Ambedkar District the problem area is now referred to as Vellore

- The main problems of this problem area is effluent arising from <u>tannery</u> related activities located in Walajapet, Ranipet, Vellore, Vaniyambadi, Melvishram
- Out of the 477 operating tannery units 377 are attached to 8 of the CETPS that were constructed for exclusively treating tannery effluents.
- Besides SIPCOT (small industries promotion corporation of TN) industrial complex at Ranipet there is a fertilizer & a ceramics unit in Ranipet besides three co-operative sugar mills and a unit of Indian Explosive at Katpadi.
- Disposal of chromium bearing wastes has been a major problem in ,m/s TN Chromates Corporation Ltd. The SPCB has issued a notice against this unit.

The rivers Palar and Ponnai after confluence meet at Ranipet, the springs below the beds of these two nonperennial rivers meet most of the demand for drinking water for the settlements in

- In TN 10 CETPs under commissioned / identified / under commissioning ;
- Out of the 366 GPI units 248 units are complying, 118 units are closed as of Dec'2006;
- Three TSDF sites identified by the state
- Seven polluted stretches have identified under NRAP ; (R. Palar at Vaniyambadi included)

the near vicinity. Soils have been reported to have salinity and alkalinity.

- 19 Pali, Rajasthan
- Water pollution from a large number of small scale textile processing units. The main pollutants include TDS, COD, BOD, Alkalinity and colour.
- Water pollution due to lack of proper wastewater treatment and drainage system.
- Water pollution due to lack of proper treatment of domestic waste and related drainage system.

- Fourth CETP is coming up in the area at the cost of Rs 18.865 crores so that the industries that have been directed by the High Court to shift to the conforming areas to connect to this CETP;
- RSPCB to submit report of utilization of CETP sludge in the Cement units which is being done on a trail basis;
- RSPCB to direct the CETP Trust for proper storage of sludge. Currently the sludge is being dumped along R Bandi bank.
- RSPCB to direct the CETP Trust to explore options to utilize treated waste water by using reverse Osmosis or by tertiary treatment as availability of fresh water is very acute in the region.
- RSPCB to establish 2 / 3 AAQ stations & revise the existing MINARS locations.

- 20 Parwanoo, Himachal Pradesh
- Water pollution due to industrial discharges, particularly from HPMC.
- Water pollution due to discharge of lead containing wastewater from M/s Gabriel (Ind) Ltd.
- Water pollution due to

- Most of the Action Pints have been complied with.
- In consideration of the pollution potential existing in certain industries following action point(s) shall be strictly complied with :
- In consideration of the proven technology for

cyanide and chromiumbearing waste discharge from small scale electroplating units.

- Water pollution due to domestic waste discharges. Inadequate septic tanks and also improper functioning of the existing ones.
- Air pollution due to emission from the induction furnaces.
- Uncontrolled disposal of hazardous wastes in the area.

Cyanide treatment available the Cyanide electroplating industries in Parwanoo area must switch-over to Cyanide free electroplating

• Intensive study of Baddi area shall be undertaken to assess the pollution potential in view of ongoing and proposed establishment of large number of industries.

- 21 Singrauli,U.P.
- Air pollution due to emissions from Thermal Power Plants handling and disposal of fly ash.
- Air pollution due to emissions from Cement Plants and Stone crushers.
- Air pollution due to large amount of sulphur dioxide emissions due to use of Sulphur containing coal in Thermal Power Plants.
- Air pollution due to emissions of chlorine, fluoride, and ammonia from the industries.
- Monitoring of Environmental Quality in Singrali area by Banwasi Sewa Asram shall be continued. In consideration of coal in Singrauli area possessing avg. ash content of 30-34 % the issue of Coal Beneficiation shall be excluded from the list of action points. However NCL shall be required to ensure supply of washed coal to the (Power) plants / users away from Pit Head.
- The issue of On-Line stack monitoring shall be restricted to PM, SO2 and NOx. The monitoring of Hg, PAH and fluoride shall be regularly performed manually by following established procedures. In case of stack emissions either on-line PM monitors or installation of Opacity meters shall be

- Water pollution due to discharge of toxic metals in wastewaters.
- Generation of hazardous waste from Chlor-Alkali and Aluminium smelting industries.

ensured

- Initiatives to be taken on ash disposal in abandoned coal mines.
- In consideration of slow progress in reference to compliance of stipulated standards by Obra Thermal power Plants, it was decided to initiate action under appropriate Section (s) of Air/ Water Act
- MoEF shall be appropriately advised so as to consider the renewal / approval of Mining Projects of NCL, only on the condition that the Mine backfilling shall be done exclusively by using ash generated from Power Plants
- The scope of Singrauli Action Plan shall include Vindhyachal Super Thermal Power Plant of NTPC
- The pollution control measures in Singrauli area shall be cross-checked verified jointly by UPPCB and CPCB
- For related issues in Singrauli areas, a separate meting with SADA shall be convened.
- An intensive study shall be carried out to assess / verify the status of pollution control measures in HINDALCO, Kanoria Chemicals Industries at Renukoot.
- Estimation of total load of SO2 from power plants shall be undertaken in addition to the Assimilative capacity of environment in Singrauli area.
- A training for monitoring of PAH, Hg and fluoride shall be organized. This shall be in reference to the request of the

industries in Singrauli area

• The revised targets as proposed by Kanoria Chemicals for switch-over from Mercury Cell based production to Membrane Technology based production shall be examined. .

- 22 Tarapur, Maharashtra
- Tarapur is located on Bombay Ahemdabad Railway at a distance of 5 km from the Arabian Sea close to the Mumbai. The entire industrial estate is spread in 1130 hectares
- River Surya is the main source of water
- MIDC has provided • three sumps at different locations for collection of industrial effluent and then pumped into common break pressure tank and finally disposed into the Arabian Sea through pipeline. There is a CETP promoted by Tarapur Industrial Manufacturers Association.
- The action plan focused on inventorisation of industries, primary treatment to be done by small scale

- Tarapur was identified as a 'critically polluted area' in 1996 having mainly chemical, engineering and textile industries respectively. Effluent disposal and improper hazardous wastes management are the main problems of this area. The region generates about 20 MLD of effluent which is being disposed to the sea near village Navapur.
- In view of the above issues the need for a secured landfill facility for disposal of HW was stressed.
- The timely completion of on-going construction of the new CETP is another important issue that also needs immediate attention. Due to lack of power supply the existing CETP was found neglected, this issue needs to be resolved.
- The existing state of the MIDC sumps were found to be in critical besides acidic pH has been reported in survey done in June 2005.
- The revised action plan needs to also address issues

industries, primary and secondary treatment to be done by all industries with effluent greater than 100 m3/d, full proof system for transportation of effluent, upgradation of existing CETP, provision of additional CETP, proper operation and maintenance of pump house and identification of site for hazardous waste disposal.

on monitoring hazardous air pollutants, regular desilting of sumps, maintenance by MIDC of industrial effluent network to CETP and linking with NIO for extended pipeline for discharging treated effluent into sea. MIDC's sludge management plan also needs to be addressed.

- 23 Vapi, Gujarat
- Water pollution due to discharge of untreated effluent from industries in Vapi.
- Presence of heavy metals and pesticides in all the drains carrying effleunts and also contamination of Kolak and Damanganga rivers by these toxic and bioaccumulative matters.
- Water quality downstream of river Kolakk is rendered unfit even for survival of any biological life.
- Air pollution due to fugitive emissions arising out of improper handling of chemicals, inadequate process controls and poor maintenance of

- The River Damanganga receives major pollution loading from the Vapi Industrial Estate through *CETP outfall*, whereas the River Kolak receives the waste load through Bill Khadi occasionally. Separate storm water drain network non-existent resulting in open drains and, also, flooding of CETP
- Stress to be made on importance of segregation of non-/less bio-degradeable wastewater emanating from the industrial estate. Need for making provisions for pre-treatment of such waste for further treatment in the existing CETP. The CETP needs to be augumented so that a higher hydraulic load can be handled.
- It was reported that the

process equipment.
TSDF site was partially covered (problem during monsoons) and the common incinerator plant was non-operational.
To meet the challenges of the growing development and associated environmental problems the revised action plan need to spell out time schedules on pertinent issues like up-

gradation of CETP, an assessment of pipeline for proper disposal of treated effluent from CETP into sea / estuary seeking input from NIO or any other institution, hazardous waste incineration, regularization of scrap dealing activity by the concerned authority, commissioning of storm water drainage network, adoption of cleaner fuels, provision of automatic air quality monitoring station and assessment & monitoring hazardous air pollutants (HAPs).

24 Visakapatnam *, A.P. • The ambient air quality in Visakhapatnam area has reached critical level in respect of suspended particulate matter, SO2 and Nox.

- The industries contributing significant pollution load in terms of BOD are Hindustan
- Most of the units have submitted action plans for implementing pollution abatement points agreed to in the CREP program and the status of implementation is being monitored.
- A study initiated in CAAQMS to monitor HAPs in ambient air. Continuous ambient air quality monitoring stations

Polymers and municipal waste while ammoniacal nitrogen and fluoride are being contributed by Coromandol Fertilisers

- High concertration of fluoride,nitrate and zinc in the groundwater.
- No systematic and proper disposal of solid waste generated from Hindustan Zinc Ltd. and Visakhapatnam Steel plant.

/ analysers (CAAQMS) installed in HPCL Vizag ;

- TSDF identified near Vizag
- Action plan for MSW received from Visakapatnam;