

3.	Regional Officer	1	95	0
4.	Sub-Regional Officer	96	1	0
5.	Deputy Engineer	1	1	0
6.	Field Officer	1	1	0
7.	Statistical Officer	1	1	0
8.	Statistical Asst.	1	8	0
9.	Draughtsman	8	2	0
10.	Field Inspector	2	37	0
11.	Asst. Draughtsman	37	7	0
12.	Field Asst.	7	2	0
13.	Tracer	2	1	0
14.	Electrician	1		
15.	Instrument Fitter			
<b>Total</b>		<b>225</b>	<b>220</b>	<b>5</b>

<b>VACANT</b>	
0	
0	
0	
4	
0	
1	
0	
1	
1	
1	
8	
2	
37	
7	
2	
1	
<b>220</b>	<b>5</b>

**A n n e x u r e**

<b>Sr. No.</b>	<b>CADRE</b>
1.	Air Pollution Abatement Engineer
2.	Water Pollution Abatement Engineer
3.	Regional Officer
4.	Sub-Regional Officer
5.	Deputy Engineer
6.	Field Officer
7.	Statistical Officer
8.	Statistical Asst.
9.	Draughtsman
10.	Field Inspector
11.	Asst. Draughtsman
12.	Field Asst.
13.	Tracer
14.	Electrician
15.	Instrument Fitter
<b>Total</b>	

<b>No.</b>	<b>CADRE</b>	<b>SANCTIONED</b>	<b>FILLED IN</b>	<b>VACANT</b>
1.	Air Pollution Abatement Engineer	1	1	0
2.	Water Pollution Abatement Engineer	1	1	0
3.	Regional Officer	13	13	0
4.	Sub-Regional Officer	53	49	4
5.	Deputy Engineer	1	1	0
6.	Field Officer	96	95	1
7.	Statistical Officer	1	1	0
8.	Statistical Asst.	1	1	0
9.	Draughtsman	1	8	0
10.	Field Inspector	2		
11.	Asst. Draughtsman	37		
12.	Field Asst.	7		
13.	Tracer	2		
14.	Electrician	1		
15.	Instrument Fitter			
<b>Total</b>		<b>225</b>	<b>220</b>	<b>5</b>

## ANNEXURE 1-1

### Staff Strength as on 31. 3.2

**I**

Sr. No.	CADRE	SANCTIONED	FILLED IN	VACANT
1.	Air Pollution Abatement Engineer	1	1	0
2.	Water Pollution Abatement Engineer	1	1	0
3.	Regional Officer	13	13	0
4.	Sub-Regional Officer	53	49	4
5.	Deputy Engineer	1	1	0
6.	Field Officer	96	95	1
7.	Statistical Officer	1	1	0
8.	Statistical Asst.	1	1	0
9.	Draughtsman	1	1	0
10.	Field Inspector	8	8	0
11.	Asst. Draughtsman	2	2	0
12.	Field Asst.	37	37	0
13.	Tracer	7	7	0
14.	Electrician	2	2	0
15.	Instrument Fitter	1	1	0
<b>Total</b>		<b>225</b>	<b>22</b>	<b>5</b>

**II**

Sr. No.	CADRE	SANCTIONED	FILLED IN	VACANT
1.	Law Officer	2	2	
2.	Asst. Law Officer	2	2	
3.	Legal Asst.	4	4	
<b>Total</b>				

**III**

Sr. No.	CADRE	SANCTIONED	FILLED IN	VACANT
1.	Principal Scientific Officer	1	1	
2.	Senior Scientific Officer	3	3	
3.	Scientific Officer	9	9	
4.	Junior Scientific Officer	26	25	1
5.	Junior Scientific Asst.	36	36	
6.	Laboratory Asst.	7	7	
<b>Total</b>		<b>2</b>	<b>1</b>	<b>1</b>

#### IV D – Accounts Administration

Sr. No.	CADRE	SANCTIONED	FILLED IN	VACANT
1.	Chief Accounts Officer	1	1	0
2.	Accounts Officer	2	2	0
3.	Administrative Officer	1	1	0
4.	Asst. Secretary	1	1	0
5.	Asst. Accounts Officer	2	2	0
6.	Head Accountants	20	20	0
7.	Library Asst.	-	-	-
8.	Senior Steno	5	5	0
9.	Junior Steno	26	25	1
10.	First Clerk	17	16	1
11.	Senior Clerks	50	50	0
12.	Junior Clerks	63	63	0
13.	Daftari	2	2	0
14.	Drivers	54	54	0
15.	Roneo Operator	1	1	0
16.	Naik	2	2	0
17.	Chowkidar	20	20	0
18.	Peons	116	99	17
19.	Sweeper	3	3	0
	<b>Total</b>	<b>3</b>	<b>3</b>	<b>1</b>

#### Posts created by the Board

Sr. No.	CADRE	CREATED	OPERATIONAL (on adhoc basis)	VACANT
1.	Sr. L.O.	2	2	
2.	Sr. AS (T)	1	1	
3.	Sr. AO	1	1	
4.	Ex. Engr.	1	1	
5.	PS to Ch/MS	2	2	
6.	Material Officer	1		1
7.	PRO	1	1	
	<b>Total</b>	<b>1</b>		<b>1</b>

## ABSTRACTS

Sr. No.	CADRE	SANCTIONED	FILLED IN	VACANT
A	Technical	226	221	5
B	Legal	10	10	0
C	Scientific	82	81	1
D	Accounts Administration	392	372	20
	<b>Total</b>	<b>1</b>		<b>2</b>

## ANNEXURE 2-1

### The Status of STPs in some Municipal Corporations

#### Mumbai Municipal Corporation:

##### 1 Malad STP:

The MCGM has installed an STP at Marve Road, Malwani, Malad (W), which was commissioned in 1988. The capacity of this STP is 240 MLD. The area covered is Goregaon to Dahisar. Part of the domestic effluent is being treated at the STP and the rest is being discharged into the creek through various nallas without any treatment.

The STP comprises of a screen chamber, grit chamber and 4 settling tanks - 60 MLD each. The inlet flow to STP is about 120 MLD and about 100 MLD in the dry and rainy seasons respectively. The treated effluent is being discharged to Malwani creek. This office regularly collects Joint Vigilance Samples (JVS) at the STP.

##### 2 Versova STP:

The Versova STP comprises of primary and secondary treatment facilities with a capacity of 180 MLD. There are 30 aerators in the aerobic lagoon and 22 aerators in the facultative lagoon at the facility. The detention time is 1.5 days in the aerobic section and 1.8 and 1.1 days in facultative I and facultative II sections respectively.

About 30 m<sup>3</sup>/m of grit is generated in the treatment facilities. The treated wastewater is further discharged into Marve creek.

##### 3 Bandra Marine Out-fall:

The Bandra influent pumping station/marine out fall has been working since 27<sup>th</sup> May, 2003 with a capacity of 76 MLD. The plant has been provided with a primary treatment facility which comprises of 8 fine screens and 4 aerated grit chambers. The grit removed is approximately 160 to 180/m<sup>3</sup> and is sent to Deonar dumping ground. After primary treatment, the effluent is discharged into the sea at a point approximately 3.7 kms. from the coast.

##### 4 Bhandup STP:

The Bhandup STP commissioned in July 2002, has a design capacity of 180 MLD. The STP comprises of primary treatment units such as screen, grit chambers, air agitators and aerated lagoons. The grit generation from the STP is about 6000 to 7000 kg/m and is disposed on Mulund dumping ground and the treated effluent is disposed in Thane creek.

##### 5 Ghatkopar STP.

The Ghatkopar STP was commissioned in May

2003 and has a design capacity of 138 MLD. The STP comprises of primary treatment units such as screen, grit chambers, air agitators and aerated lagoon. The grit generation from the STP is about 7000 to 8000 kg/m and it is disposed on Deonar dumping ground and the treated sewage effluent is disposed in Thane creek.

##### 6 Worli Marine Outfall:

The Worli marine out fall was commissioned in 1981 and has a design capacity of 756 MLD. The STP comprises of primary treatment units such as screen, grit chambers, and air agitators. The marine out fall passes at about 65 meters below ground level and about 53 meters below sea bed. The sewage flows through a tunnel of 3.4 km length and disperses into sea water through risers at end of the tunnel.

##### Colaba Marine outfall. :

The Colaba marine out fall commissioned in 1988 has a design capacity of 41.1 MLD. The STP comprises of primary treatment units such as screen, grit chambers and air agitators. The length of the marine out fall is 1.15 kms.

##### Navi Mumbai Municipal Corporation :

The total sewage effluent generated in the NMMC area is to the tune of 100 MLD and is collected through closed underground sewerage system provided in most of the areas. There are 8 STPs in this area and details are provided in the table below. Though NMMC has provided STPs at various locations, the operation and maintenance of these STPs is very poor. This office has issued directions to NMMC and asked to prepare an action plan in this regard. The NMMC has made budgetary provision in their budget for 2006-2007 for renovation and upgrade of all STPs. Slum areas of Turbhe and Ghansoli node are yet to be covered under planned sewage collection and treatment systems.

In Vashi node there are a few spots where domestic sewage gets stagnated causing smell nuisance in the surrounding areas. MPCB has asked the Corporation to prepare a time bound action plan for proper treatment and disposal of sewage. Because of discharge of sewage into fish ponds at Ghansoli, directions were issued to NMMC to stop this discharge and provide proper drainage system. Follow up in this respect is being done.

### Details on the NMMC STPs

Sr. No.	Node	Capacity in MLD	Treatment type	Final disposal
1	Belapur, Sector 12	21.00	Aerated lagoon	Creek
2	Belapur, Sector 26	0.15	Primary treatment	Gardening
3	Nerul, Sector 2	17.00	Aerated lagoon	Creek
4	Nerul, Sector 50	23.00	Aerated lagoon	Creek
5	Vashi, Sector 18	34.00	Pri. Sec treatment.	Creek
6	Sanpada, Sector 20	31.00	Aerated lagoon	Creek
7	Airoli, Sector 18	18.00	Aerated lagoon	Creek
8	Koparkhairne, Sector 14	36.00	Aerated lagoon	Creek

### **Nagpur Municipal Corporation**

Nagpur Municipal Corporation has installed a 100 MLD STP at Bhandewadi which treats 1/3 of the sewage generated by Nagpur city.

## ANNEXURE 2-2

### Controlling Pollution at some Industries in Maharashtra

#### Pollution Control at Four Industries in Chembur

Industry	Control Measures Adopted
<b>M s Tata Power Co. Ltd.</b> Trombay, Mumbai  Thermal plant	<ul style="list-style-type: none"> <li>- ESP and flue gas desulpherisor at unit No.5 to control air pollution.</li> <li>- SPM control at coal fired unit No.5.</li> <li>- Reduction of noise level up to 65 dB<sub>A</sub>.</li> <li>- Waste oil is disposed off by sale to authorized recyclers.</li> <li>- Fly ash is given to dealers to use in construction.</li> </ul>
<b>M s BPCL</b> Mahul, Chembur, Mumbai  Refinery	<ul style="list-style-type: none"> <li>- ETP (primary, secondary and tertiary) including RO Plant.</li> <li>- Sulphur Recovery units</li> <li>- Use of low sulphur short residue liquid fuel in furnaces and boilers.</li> <li>- Co-boilers in Fluid Catalytic Cracking unit (FCCU).</li> <li>- Oxygen and Carbon Monoxide Analyzer for furnace stack.</li> <li>- High efficiency boilers.</li> <li>- Conversion of fixed roof tanks to floating roof tanks in Naphtha and motor spirit.</li> <li>- Benzene vapor recovery unit at tank lorry loading.</li> <li>- Mechanical oil recovery from oily sludge, followed by bioremediation.</li> <li>- Spent catalyst disposed to suppliers/vendors.</li> </ul>
<b>M s Hindustan Petroleum Corpn. Ltd.</b> Mahul, Chembur, Mumbai  Refinery	<ul style="list-style-type: none"> <li>- Two ETPs to treat floor wash effluent and industrial effluent – primary and secondary treatment.</li> <li>- Sulphur recovery units.</li> <li>- Diesel Hydro De-Sulfurisation for sulphur recovery from diesel.</li> <li>- Flue Gas Desulfurization (FGD) to remove sulphur from flue gas.</li> <li>- CO Boiler for converting CO to CO<sub>2</sub>.</li> <li>- Mechanical oil recovery from oily sludge, followed by bioremediation.</li> <li>- Spent catalyst disposed at common CHWTSDF at Taloja.</li> </ul>
<b>M s Rashtriya Chemicals and Fertilizers Ltd.</b> Trombay, Mumbai  Chemicals and fertilizers manufacturer	<ul style="list-style-type: none"> <li>- ETP with primary and secondary treatment</li> <li>- STP with primary, secondary and tertiary plants. The treated effluent of is used in process.</li> <li>- Condensate stripper in ammonia plant</li> <li>- MP and LP scrubbers in urea plant</li> <li>- Multiple water scrubbers in complex fertilizer plant.</li> <li>- Cryogenic purge gas recovery plant to recover ammonia and hydrogen from purge gas.</li> <li>- Back filter cyclone separators and multiple scrubbers for control of particulate emissions.</li> <li>- For SO<sub>2</sub> reduction, high efficiency brink mist eliminator for control of acid mist emissions.</li> <li>- Caustic scrubber for control of SO<sub>2</sub> emissions.</li> <li>- Selective catalytic for reduction for controlling NO emissions through HNO<sub>3</sub> plant.</li> <li>- Wet water scrubbing of fluorine contained gases in phosphoric acid plant to control fluorine emissions.</li> <li>- ETP sludge is disposed of by sale to end users and waste oil is disposed to authorized recyclers or reprocessors.</li> </ul>

## Pollution Control Technologies Adopted by Industries in Aurangabad Region

Industry	Control Measures Adopted
<b>M s. Shaw Wallace Ltd.</b>	Installed RO and Composting System for treatment of spent wash generated from their processes.
<b>M s. Pioneer Distilleries Ltd.</b>	Installed a Bio-digester as a primary treatment device followed by secondary treatment consisting of anaerobic filter, spray basins, aeration tank and secondary clarifier for treatment of spent wash.
<b>Cluster of steel plants in alna MIDC</b>	All these steel plants have installed air pollution control systems. Agreed to install improved systems as per the suggestions and guidelines of NML, Jamshedpur within one year.
<p><b>Thermal Power Plant located at Parli Dist Beed</b></p> <p>The electricity generation capacity of said Thermal Power Plant is 690 MW. The daily coal consumption is 12000 MT</p>	<ul style="list-style-type: none"> <li>- Effluent treatment plant for industrial and domestic effluent.</li> <li>- Electrostatic precipitators have been provided for all boilers for controlling air pollution.</li> <li>- Flue gas conditioning with ammonia gas is being practiced to improve the performance of ESP.</li> </ul>
<b>M s. Orchid Chemicals and Pharmaceuticals Ltd.</b>	<ul style="list-style-type: none"> <li>- Installed primary, secondary and tertiary treatment system followed by RO system and mechanical multi-stage evaporators for treatment of effluent.</li> <li>- Installed scrubbing system for extraction of process emission.</li> <li>- Obtained the membership of CHWTSDF and send their hazardous waste to such a facility.</li> </ul>
<p><b>Electroplating plants are located in MIDC Walu Area</b></p> <p>There are small scale electroplating units which have been operating in the area without consent of the board. During this year around 26 such units have been identified and issued necessary direction including closer to 11 units.</p>	<ul style="list-style-type: none"> <li>- Installed chrome and nickel recovery systems as well as primary, secondary and tertiary treatment systems for treatment of industrial effluent generated from their processes.</li> <li>- Installed metal recovery systems followed by scrubbing systems for the control of process emissions.</li> <li>- Obtained membership of CHWTSDF and send their hazardous waste to the said facility for treatment and disposal.</li> <li>- CETP in progress</li> </ul>
<b>M s. Nath Pulp and Paper Mills Ltd.</b>	<ul style="list-style-type: none"> <li>- Installed caustic recovery plant for the effluent generated from bagasse pulping activity.</li> <li>- Installed air pollution control system to the coal fired boiler.</li> <li>- Installed effluent treatment plants and are recycling effluents to the maximum extent.</li> </ul>

## ANNEXURE 3-1

### Surveys and Studies

#### ater Surveys and Studies

##### 1. Mithi River Survey

**Need for the Study:** In response to a Public Interest Litigation, on the lapses and omissions on the part of various authorities while dealing with the problems of Mithi river pollution including the rise in illegal encroachments and unauthorized units, which have reduced the Mithi River to a gutter, the Hon'ble High Court directed MPCB to investigate the situation and address it.

**Ob ectives:** To perform a detailed survey to identify additional unauthorized units and prepare a fresh / updated list of polluters, to clean the river, stop polluting, provide adequate and suitable STPs and a time bound action plan for necessary implementation involving various concerned authorities like MCGM, Collector, Mumbai and Suburb as well as MPCB.

**Study Conducted by:** M/s. Klean Environment Services Pvt. Ltd., Mumbai (contracted by the Board)

##### Methodology:

To monitor 20 points along the stretch of Mithi river, collect and analyze samples and submit a report by June, 2004 on the Mithi river water quality, sludge quality and quantity as well as short term and long term measures to control pollution of Mithi river.

To identify illegal industries and unlicensed activities, discharging industrial waste into Mithi river, to collect samples and prepare a comprehensive report

##### Outcome Recommendations:

1. Immediate closure of all the unauthorized

activities discharging wastes, provide proper garbage collection system to prevent dumping into the river as short term measures

2. Plan for sewers on both the banks of the Mithi river with STPs at various locations,
  3. Remove debris along the entire length of Mithi river bed to improve its carrying capacity
  4. Provide proper garbage collection stations for the benefit of hutment dwellers.
  5. Seek further discussion and assistance from MCGM, MMRDA, Collector, Mumbai and Suburb, Maharashtra Costal Zone Management Authority (MCZMA) and Urban Development Dept., GoM.
- ##### 2. Review of Permissible Limit of BOD and TDS for Land Disposal of Treated Effluent at Aurangabad

**Need for the Study:** In Aurangabad MIDC, increase in population and the subsequent unplanned disposal of liquid, solid and gaseous wastes manifested in a set of environmental problems, since there is no adequate facility for treatment and disposal of sewage. The ground water in the area is threatened due to the disposal of sewage and trade effluent on land without complete or partial treatment. Hence, a feasibility study was commissioned by the Board.

**Ob ectives:** Review the permissible limits of BOD and TDS for land disposal of treated effluent.

**Study Conducted by:** NEERI

##### Outcome Recommendations:

This study is currently underway. Hence, the final outcome or recommendations are not available. However, a progress report on work that has been completed and is currently underway is presented in table below.

Progress of the Feasibility Study for Land Disposal at Aurangabad

Wor Completed	Wor Underway
Evaluating suitability of various types of soils for treatment and disposal of wastewaters	Undertake geophysical investigations near the discharge points of treated effluent
Measuring the ground water pollution potential by leachates/ percolates from land disposal system	Develop mathematical models which predict the transport and removal of the contaminant in partially saturated soil
Evaluating physico-chemical and microbiological changes in different soils irrigated with wastewater	Calibrate and validate the models from column lysimeter study
	Carry out sensitivity analysis of various model parameters to study system behavior under various operating conditions
	Develop guidelines for the disposal of wastewater through a design protocol

### 3. Survey of Central and Western Railways Workshops for Monitoring Discharge of Wastewater Containing Boron and its Compounds

**Need for the Study:** Indian Railways have various diesel locomotive sheds in Maharashtra, namely Pune, Kalyan, Parel, Bandra, etc. These workshops use chemicals for their cooling water system. The water from the system is discharged into the local drainage system by the Railway. An environmentalist noted that this discharged water contains levels of boron greater than 2 mg/l,

workshops now use INDION 1344 as a corrosion inhibitor in coolant water for their locomotives, which contains boron nitrite (2%). In addition, since the wastewater showed high levels of oil and grease, the Board recommended that these pollutants be removed from the water before discharge. Moreover, the Board also stated that the Railway authority should seek consent from the Board and submit a wastewater analysis.

### 4. Investigation of Dead Fishes near Gateway of India and Other Locations Along the Coast of Mumbai during October 2005

Chemical Analysis of Wastewater Samples Discharged from Central and Western Railway Workshops

Parameter	MPCB Standards	Sample of used coolant at Parel Workshop	Sample of outlet to BMC at Parel Workshop	Sample of outlet to BMC at Kurla Workshop
pH	Between 5.5 to 9.0	7.9	8.7	7.5
Suspended solids	Not to exceed 100 mg/l.	1,538.0	342	32
BOD, at 3 days 27 deg. C	Not to exceed 100 mg/l.	---	3,400	14
COD	Not to exceed 250 mg/l.	---	1,4640	128
Oil and grease	Not to exceed 10 mg/l.	3,511.4	1,928	1.6
Total dissolved solids	Not to exceed 2100 mg/l.	---	9,872	---
Boron	Not to exceed 2 mg/l.	2.0445	0.1340	Below detection limit (BDL)
Chromium (hexavalent)	Not to exceed 0.1mg/l.	BDL	BDL	---
<b>Total chromium</b>	Not to exceed 2 mg/l.	0.043	0.240	---

which is a toxic level. The two Photographs below give an idea of the situation.

**Objectives:** Monitor the Railway activities and consent compliance, collect samples and take legal action if necessary.

**Study Conducted by:** MPCB

**Methodology:** Take samples and analyze.

**Outcome Recommendations:** The results of the study are based on the observations noted in the table below, which is a chemical analysis of the collected samples.

In response to the Board's investigations and issuance of SCNs to violating units, all the

**Need for the Study:** The month of October 2005 saw many fish deaths at various places in the city. Dead fishes were found floating in large quantities near the Gateway of India and different species washed ashore along other areas of the Mumbai coast such as Juhu and Khar.

**Objectives:** Understand issues connected with all instances of fish death and communicate possible causes and suggest remedial measures if possible.

**Study Conducted by:** NEERI and CMFRI with assistance from CIFE

**Methodology:**

1. Carry out site visit and observe site conditions.
2. Classify and photograph dead fish.

3. Take samples of environmental parameters and analyze.
4. Study upwelling using satellite based RS of wind vectors along the Mumbai coast.

#### **Outcome Recommendations:**

1. Majority of dead fish at Gateway of India belonged to the genus *rirus* of catfishes. Collaborating investigations suggested the possibility of the catch being thrown away from some commercial purse-seine boats due to lack of proper storage in the fish hold and from adjacent fish landing centre at Sassoon docks. Low prices combined with bumper landings of catfish had forced the fish traders to discard rotten catch after removal of airbladders.
2. In Juhu, while most fish swim away from intense upwelling conditions, eels being slow swimmers were probably getting trapped in the rising water with unfavorable environs and getting washed ashore in dead conditions.
3. Dadar and Khar and Danda beaches are very close to sewage discharge points of the diffusers that are in operation after implementation of marine outfall project of the municipal corporation. Thus fish mortalities can be attributed to synergistic or combined effect of all the complex processes going on in the ecosystem as also pollution.

#### **Industrial surveys and Studies**

##### **1. Survey Report of MIDC Lote Parshuram Carried out During April 4 2005**

**Need for the Study:** A primary CETP was installed in 2001 in MIDC, Lote Parshuram and modernized in 2003. However, while the establishment of CETP minimized the problems of water pollution, it did not eliminate them completely. Intermittently fish kill incidences were observed. During the visit of Shri Ganeshji Nashik, Hon'ble Minister of Environment and Dr. D. B. Boralkar, Member Secretary of the Board along with Board officials on 2<sup>nd</sup> and 3<sup>rd</sup> March, 2005, it was observed that the CETP was not able to follow the terms of its consent due to irregularity in discharge of partially treated effluent by a majority of industries. Necessary legal action was initiated against the defaulting industries not conforming to the inlet characteristics of CETP, but the irregularity persists to date and industries still remain in violation of the terms of their consents.

**Objectives:** To carry out an Action Plan to identify the defaulting industries that are responsible for pollution problems in the Lote Parshuram area.

**Methodology:** Three teams were assigned to carry out JVS. Team A comprised of three groups that collected 4 samples in 8 hours and one composite sample for 8 hours. Their survey covered 42 water polluting industries, out of which 5 industries were closed and no effluent or discharge was observed throughout 24 hrs from industries. Team-B (Mobile Monitoring Van group) continuously surveyed the selected air polluting industries for 24 hours. 4 industries were covered by this team. Similarly, Team-C carried out the stack monitoring survey of 14 air polluting industries. The JVS collected were delivered to the laboratory immediately by the respective groups. The JVS result for parameters pH and COD were made available within 12 hrs.

**Outcome Recommendations:** On analysis, it was observed that the industries with major water polluting potential are LSI and MSI. In fact the treated effluent from LSI and MSI is intended to dilute effluent in the main wastewater stream/pipeline. Hence, individual industries were recommended for legal action according to their effluent quantum and pollution potential. Similarly, air polluting industries that did not meet with the norms were recommended for legal action. A scorecard was provided with results for individual industries. Out of 42 industries inspected during survey, 28 industries were recommended for legal action.

##### **2. Assessment of Status of Soil Plant and Ground water Following Land Disposal of Industrial waste water at MIDC Butibori Nagpur**

**Need for the Study:** Land disposal of wastewater is one of the alternative methods, to achieve zero discharge. However, this needs to be carried out scientifically. Indiscriminate usage of wastewater on land, may lead to several environmental issues such as soil sickness and ground water pollution often leading to irreversible ecological damage. At the Nagpur MIDC area, around 45 industries are practicing zero discharge as directed by MPCB. The treated wastewater generated by these industries is currently discharged on land. Status of the land with respect to soil, plant and ground water quality is not known and requires to be addressed in order to evaluate the currently ongoing land disposal practices.

**Objectives:** To determine the status of land with respect to soil, plant and ground water quality in the MIDC area.

**Study Conducted by:** NEERI

**Methodology:**

- Characterization of effluents disposed on land for irrigation
- Evaluation of the physico-chemical and microbiological changes in different soils irrigated with the effluent
- Evaluation of ground water pollution in the Butibori, MIDC area by installing piezometers at the land application sites receiving treated waste water
- Evaluation of the effect of effluent disposal on land and its effects on soil. Studying the morphological changes in plants.
- Development of guidelines for the land disposal of waste water through a design protocol.
- Recommending a strategy for sustainable land practices

**Outcome Recommendations:**

Build up of salinity and solidity was found on land due to continuous application of the treated wastewaters in an unplanned manner at Indo-Rama Synthetics India Ltd., Morarji Brembana Ltd., and Unitech Power Transmission Ltd. This can be overcome by a proper and well designed land treatment system for application of wastewater and plantation of trees having high cation uptake transpiration rates such as *Acacia mangium* (Acacia), *Acacia auriculiformis* (Australian babool), *Dendrocalamus strictus* (Bamboo), *Eucalyptus hybrid* (Eucalyptus) and grasses such as *Setaria verticillata* (Khus), *Cymbopogon flexuosus* (Lemon) etc.

The GIS studies indicated that the overall slope of the ground is towards the Krishna River meaning thereby that the surface run-off following the prevailing practice of land application of wastewater will pollute the river. The ground water samples collected from the hand pump and wells at Takalghat village demonstrated high TDS, BOD and chloride contents and require remediation. Hence, the current land disposal practices should be stopped immediately and, to avoid further contamination, CETP at Butibori should be made operational at the earliest. The draft report is completed.

**3. Performance Evaluation of CETP in Maharashtra**

**Need for the Study:** Individual treatment of effluent in small quantities in SSI units is often constrained by techno-economic feasibility and often poses a serious threat to the financial viability

of small scale industries. Hence, MPCB and MIDC jointly promoted the concept of CETP through local Industries Associations. Also, some financial assistance was provided by MPCB, MIDC and MoEF, GoI, New Delhi.

**Objectives:** Review of the CETPs' performance was necessary, to ensure that the CETPs are made functional as per the original design and are operated properly. It is also necessary to review/ assess the modifications/ augmentations required, if any.

**Study Conducted by:** M/s. Aditya Environmental Services Pvt. Ltd, Mumbai

**Outcome Recommendations:** This study is underway and the outcome/ recommendations are not currently available.

**4. E-waste Assessment**

**Need for the Study:** Considering the large potential of e-waste generation in the MMR and within the Municipal Corporation areas of Pune and Pimpri-Chinchwad, which support a very large number of corporate offices, IT industries and government establishments, MPCB has taken the initiative at the State level of establishing an "Expert Group" under part funding from UNEP, this group has taken the initiative to establish the e-waste inventory by commissioning e-waste city assessment studies for Mumbai and Pune.

**Objectives:**

- Assessment of existing and future quantity of WEEE in MMR and Pune and Pimpri-Chinchwad Municipal Corporation areas
- Assessment of existing recycling methods being followed for WEEE
- Assessment of whether the WEEE recycling is currently posing any major environmental problems/risks or likely to pose environmental problems in the future
- Assessment of capacities/capabilities of existing stakeholders and infrastructure required for WEEE management
- Assessment of environmental and social sustainability of present systems
- Assessment of the e-trade economics
- Feasibility of setting up of e-waste recycling facility as common infrastructure for environmental protection

**Study Conducted by:** M/s IRG Systems South Asia Private Ltd, New Delhi

**Outcome Recommendations:** This is an ongoing study and the outcome/ recommendations are not currently available.

**Some other studies that were carried out during the reporting year include:**

- Extensive survey of Hingna and Kalmeshwar industrial area was carried out and 201 directions were issued for control of air and water pollution.
- Chandrapur Action Plan has been prepared for control of pollution at Chandrapur. At present extensive sampling work is in progress.
- Survey of units carrying out distillation of spent solvents was carried out for Navi Mumbai Region.
- Survey of stone crushing units is being carried out for entire all stone crushers in the Navi Mumbai Region.
- Performance evaluation of efficiency of effluent treatment plant of M/s. United Breweries Pvt. Ltd., MIDC Taloja, M/s. BASF Ltd., MIDC TTC. and M/s. Rallis India Ltd., was carried out.
- Recently, a survey of Matheran was carried out in connection with the fact that this area has been declared as an ESZ. Work on the pollution load status in Matheran is under progress.
- Survey of major water polluting units in MIDC Dhatav is carried out. High COD bearing streams generating industries have been identified and persuaded to provide segregated treatment for the same.

## ANNEXURE 3-2

### Enforcement In Industrial Sectors

#### **1. Pharmaceutical Medicine Warehouse affected by Flood in Bhiwandi Area:**

The heavy rains on 26/07/2005 and 27/07/2005 in the Mumbai, Thane region of Maharashtra affected the normal life in the Region. Due to the deluge, the pharmaceutical medicine warehouse situated in the Kalher, Purna Village of Bhiwandi Taluka also got affected. A huge quantum of pharmaceutical medicine stored in the warehouse was damaged due to flood water. MPCB learnt about this issue and has started surveying such warehouses in the Bhiwandi Taluka. Twenty such warehouses were inspected on 08/08/2005, 10/08/2005, 13/08/2005, 15/08/2005 and 22/08/2005 in which approximately 2240 tons of pharmaceutical medicine were reported as damaged and spoiled.

Drugs and drug formulations, as well as medicines with expired dates that need to be discarded fall under category 28.3 of Schedule I of the HW rules. Therefore such HW needs to be sent to an appropriate CHWTSDF for scientific treatment and disposal. During their visit, MPCB officials suggested that the responsible parties dispose all damaged medicines to a CHWTSDF authorized by the Board. Accordingly a notice was sent out to 13 warehouses and has been complied by the owners of the warehouses. A total of approximately 303 tons of HW has been disposed off and the warehouses are now being stocked with new medicines.

#### **2. Environmental Pollution Due to Stone Quarrying at Hiranandani Garden Powai Mumbai**

The Powai hills have been exploited for construction stones and related activities since a very long time. The area near Powai has experienced rapid residential growth in last few years. The quarrying operations and associated activities like blasting, charge drilling, chiseling and stone crushing have caused noise pollution in the area. In addition, problems such as soil erosion, siltation and landslides are being seen during the rainy season. Air pollution is also common.

The Board received complaints from residents regarding environmental pollution in the Hiranandani Gardens. The residents also complained about the violation of MoEF notification dated 7.7.04, regarding clearance for the new construction projects. They brought specific cases of construction projects which attract the provisions of this notification to the attention of the Board.

Considering the gravity of the problems the Member Secretary of the Board formed a committee consisting of Dr. S. B. Katoley, Advisor and Dr. Ajay A. Deshpande, Regional Officer of the Board to investigate the matter thoroughly and suggest actions to control pollution. The committee on review of the complaints and discussions with some of the office bearers of the housing societies noted that the problems are mainly related to

- a. Concerns due to quarrying activities i.e. blasts, noise, vibrations, dust, increase in siltation, stone missiles, environmental degradation, landslides, run off etc.
- b. Air Pollution problems due to hot mix plant, stone crusher and ready mix plant in the vicinity of housing societies and an upcoming Technology Park.
- c. Violation of MoEF notification dated 7.7.04 due to new construction projects of building. The committee visited the area along with representatives of the Housing Societies on 13.05.

MPCB enforces the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and various Rules notified under Environmental (Protection) Act, 1986. However, specific industries such as stone crushers, hot mix plants and ready mix concrete plants, which have defined sources of pollution, are covered under the consent mechanism under the above Acts. The stone quarrying activities are regulated by the State Revenue Department under Minor Minerals Act and the District Collector and Mining Officers are responsible for giving the required permissions to operate the quarry. They are also responsible for permitting the use of the explosives used in the quarries. MPCB has no authority under the above Act to grant permissions for the stone quarrying activities. Large scale stone quarrying activities, can have several environmental impacts such as effects of blasts, vibrations, stone missiles, loosening of earth thereby increasing the chances of landslides and siltation rates, aesthetics etc.

Based on the observations and non compliance of stone crushers under Air (Prevention and Control of Pollution) Act, 1981, it was decided to bring the matter to the notice of Collector, Mumbai Suburban District who has authority to regulate these activities. Accordingly, the following recommendations were made

## Recommendations

Directions under 31 (A) of Air (P & P) Act, 1981 shall be issued to collector, Mumbai Suburban District to stop stone quarrying activities in this area since these are causing vibrations and noise pollution.

It shall be immediately ensured that Supreme Stone Crusher stop its activities as per closure directions issued by MPCB. In case of further non-compliance of the directions a criminal case shall be filed with police and in a court of law. Action should also be taken against the power supply company if they fail to comply with MPCB directives to disconnect power supply to this unit.

Directions under section 31 (A) of Air (P & CP) Act, 1981, shall be issued to M/s. Hiranandani Builders for immediate closure of the Hot Mix plant operated by them.

Directions under section 31 (A) of Air (P & CP), 1981 shall be issued to the Ready Mix Plant restricting its operation time from 10 am to 6 pm and also restricting their production only to the consented capacity.

M/s. Hiranandani Constructions have been issued a stop work notice for reported violations of MoEF Notification dated 07/07/2004. In view of the directions of Hon'ble High Court at Mumbai in the WP on development of mills lands, MPCB shall take up the matter with MCGM to ensure that violations do not continue in future. If the violations of the provisions of Notification dated 07/07/2004 are confirmed, action under Environment (Protection) Act, 1986 shall be initiated against Hiranandani Constructions accordingly.

### 3. Ground water pollution problem in MIDC area at Aurangabad

The MIDC Area, Waluj is established on Aurangabad-Pune State Highway at a distance of about 20 km. from Aurangabad city. The total area of MIDC is about 1520 hectares. There are about 1230 industries which covers all small, medium and large scale units. There are about 250 units generating industrial effluent. Of these 42 are medium and large scale units and remaining are small scale units. Most of the large and medium scale units are polluting in nature and are also major water consumers. These 42 units also generate the most wastewater. In MIDC, mainly engineering (electroplating and surface treatment), chemical and bulk drugs, breweries, pharmaceuticals, etc. types of

industries are established. The total quantity of effluent generation from units located in MIDC Waluj Area is about 1.5 MLD which includes 6.5 MLD industrial and 3 MLD domestic effluents.

Most LSI and MSI with self treatment facilities consist of primary, secondary and tertiary treatment and most of these industries own sufficient land for the disposal of their treated effluent, but the disposal of treated effluent is not performed in a scientific manner. Most of the SSI are involved in electroplating, surface treatment, phosphating, painting, etc. activities and they have not provided full-fledged effluent treatment and disposal facilities due to which the substandard effluent generated from such industries is being disposed outside the factory premises. The MIDC authorities have not provided any conveyance and collection system for such effluent. There are a number of complaints of surface water and ground water pollution in and around MIDC Waluj Area. Specifically, the complaint of MLA, Gangapur was received by this office in January, 2005. The Board carried out a survey of MIDC Area, Waluj in January - February, 2005. In the survey, samples of wells and bore wells of Ranjangaon (Shenpunji) were collected and analyzed. The analysis reports show ground water contamination of the said area. The Board has issued directions under Section 33A of the Water (Prevention & Control of Pollution) Act, 1974 to the Executive Engineer, MIDC, Aurangabad on 23/01/2005 and directed to prepare a concrete proposal for the collection of total effluent from all the industries in the area and also prepare a proposal for scientific disposal of said effluent beyond the catchments area of percolation tank located at Ranjangaon (Shenpunji).

The Board has taken action against 41 industries of MIDC Waluj Area for not providing full-fledged treatment and disposal facilities by issuing various directions under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 from January, 2005. The Board has also issued SCNs to 62 industries in the area. There was a LA regarding water pollution in and around Waluj MIDC Area in Assembly Session in the month of March, 2005.

MIDC has decided to install a CETP in MIDC Waluj Area. The detailed project report for installation of a 10 MLD CETP was submitted by the Waluj Industries Association to MIDC. The process towards the installation of CETP has been started.

#### 4. Rivers flowing through coastal belt

Along the Coastal belt of the State, due to rapid industrial development, the rivers flowing through the belt are facing pollution problems. These rivers receive pollutants through discharge of effluents by industrial establishments located nearby the rivers.

##### **Patalganga River:-**

In the A-II zone of Patalganga river, industries have been prohibited to discharge treated effluent into Patalganga River. However, Municipal Council Khopoli, located in A-II Zone of Patalganga River is a major source of river water pollution since it discharges domestic effluent to the tune of 11 MLD (maximum) into river without any treatment. Similarly fish development ponds at Khopoli also discharge untreated effluent into the river.

In the saline water zone, treated industrial effluent from industries located in MIDC Patalganga Rasayani is discharged at one point near Kharpada Bridge. Since the pollutant does not get dispersed properly at this point the pollution of river water occurs to some extent.

Tata Power Co. releases tail race water into Patalganga River depending upon production capacity, which varies day to day. Whenever lowest discharge occurs it causes enrichment of pollutant in the river and may cause pollution of river. The gravity channels through which water from various dams at Lonavala is passed are not cleaned which results in the turbid nature of water. Frequent accidents of tankers carrying chemicals / oil etc. at Borghat, upstream of Khopoli may cause river water pollution.

##### **Kundalika River:-**

Monitoring of Kundalika river water is done in A-I, A-II and SW stretches of the river. Quality of river in the A-I and A-II classes is satisfactory, however quality in saline water zone at Areykhurd where treated industrial effluent from CETP Roha is discharged is found to be deteriorated.

Water quality of Amba River is also monitored. There is no industrial estate in the catchment of this river. However some big industries like IPCL, Supreme Petrochem Ltd., Schenectady Herdillia

Ltd., and Sunshield Chemicals Ltd. are established in the catchment. Quality of river water in the A-II class appears to be within environmental standards at MIDC Jackwell, Nagothane and Wakan.

##### **Major sources of Kundalika River water pollution.**

- 1) Discharge of untreated sewage at Ashtami Bridge in Roha town causes water pollution problems. Bacterial analysis has shown high coliform at Ashtami Bridge in Kundalika River.
- 2) Treated industrial effluent from RIA CETP is discharged at Areykhurd in the saline zone of river Kundalika. At this point dispersion of pollutants is not adequate. This is not the recommended point of effluent disposal. It is therefore necessary to dispose the treated effluent at Mahadev Khar, which is the recommended point of disposal.

Vehicle washing is carried out by the citizen of Roha town at Ashtami Bridge in A-II class of Kundalika River.

Sand dredging is also carried out regularly in saline zone of river of Kundalika at Gofan and Sanegaon. This may result in adversely affecting river eco systems and the food chain of aquatic organisms.

##### **Savitri River:-**

The Savitri River water quality in A- II class is generally satisfactory. However at Ovale and Ambet the saline zones of the river, the water quality deteriorates at times. This is due to improper dispersion of pollutants due to non-operation of diffuser systems.

As part of an action plan the Board is keeping vigil on optimum performance of CETP and proper disposal of industrial effluent at Ambet by MIDC. Segregation of high COD streams from various industries and its treatment in common multiple effect evaporator at MIDC Mahad is also covered under action plan.

Board has instructed MMA Association to explore possibilities of providing common multiple effect evaporator at MIDC Mahad with a group of industries such as Shree Hari Chemicals, P. I. Drugs etc. The Board has directed this group of industries to put up a multiple effect evaporator.

## ANNEXURE 3.3

### Important orders

**ENVIRONMENTAL CLEARANCE FOR CONSTRUCTION PROJECTS**  
**Order passed by Hon'ble Maharashtra State Human Rights Commission in the**  
**Case No. 15/16/2005/21 filed by Citizens Awareness Forum through**  
**Smt.Kunika S. Lal**

**The Deputy Commissioner of Police**

**Ors. Including Member Secretary MPCB**

Citizens Awareness Forum through Smt. Kunika S. Lal had filed an application before Hon'ble Maharashtra State Human Rights Commission on 31/10/2005, stating that the Maharashtra Housing and Area Development Authority (MHADA) has started construction of a housing project at Oshiwara, Andheri (West), Mumbai, wherein 1000 flats are being built. It was stated that the said construction started somewhere in the latter half of the year, 2004. It also stated that the Oshiwara area of Mumbai is one of the most congested localities, where the load of traffic on the clogged roads is immense. Since, there is a lack of open spaces, it was alleged that this project would have immense environmental consequences.

The applicant also stated that MHADA has started construction work without getting environmental clearance, as required under the Environment Impact Assessment Notification dt.27/1/14 as amended on 7/7/2004. The complainant (applicant) had issued one notice to MHADA in this regard, however, the MHADA had failed to follow the provisions of the EIA Notification and therefore, the applicant had lodged one complaint to lodge a First Information Report (FIR) with Versova Police Station on 12/ /2005. However, in spite of the complainant's request, the Police did not proceed to file a FIR and aggrieved by the gross omissions of the Police and other Authorities, the complainant approached the Maharashtra State Human Rights Commission.

The applicant listed several government authorities as Respondent in the said application / complaint, including MPCB. The Board filed its reply on /12/2005. It was specifically stated that the Board is entrusted with the implementation of the Environment (Protection) Act, 1986 Rules made thereunder. The Board has also made it clear that the project which costs less than Rs.50 crores, having discharge of domestic effluent less than 50,000 ltrs. per day and the proposed occupancy less than 1000 persons does not require an environmental clearance under EIA Notification, 14 as amended on 7/7/2004.

MPCB also stated that each proposal is examined on its merit and then a decision is made as to whether the EIA Notification, 14, as amended on 7/7/2004 applies to the project in question. In fact, MPCB had issued MHADA with a notice to stop work for their construction project on plot bearing No.120, CTS No.1374 at Versova, Andheri, as MPCB did not have any documentary evidence about the said construction activity. Therefore, MHADA applied for exemption from the above Notification on the grounds that the cost of the project is less than Rs.50 crores, the occupancy is 60 and effluent generation will be 4.6 CMD. Since, at that particular time, the said work did not need an environmental clearance, per EIA Notification, 14, dt.7/7/2004, MPCB issued a letter to MHADA indicating the non-applicability of the provisions of the EIA Notification to the said project.

Thereafter, MHADA approached MPCB for exemption from the above Notification on the grounds that more than 75% of the work of the project has been completed before 7/7/2004 and the balance project work of construction work on the disputed land does not attract the provisions of the EIA Notification dt.7/7/2004.

MPCB after due consideration of the facts circumstances, of the said proposal withdrew the stop work notice and recommended the proposal to MoEF and made it clear in the said withdrawal of notice letter that IAA reserves the right to review the case of MHADA in the public interest, if material facts justifying the need for such review come to the light as per EIA Notification and in such circumstance, the proposal of MHADA will be subject to the terms conditions of directions issued by IAA.

MPCB in its reply before Hon'ble Human Right Commission has made it clear that it has not granted any final clearance/exemption to MHADA, but has come to the conclusion that said project does not attract the provisions of the EIA Notification. It also pointed out that the appropriate remedy for the complainant is to

approach the Environment Tribunal and therefore, requested that the complaint may be dismissed.

All the parties to the said application, including MPCB were heard at length by the Hon'ble Maharashtra State Human Rights Commission. The Commission observed while passing the order dt.28/3/2006 that MPCB has not stated anywhere that it has granted any exemption and that it is absolute. It was also noted, that construction work was stopped in in September, 2005 when MPCB sent its initial notice and after getting the representations as well as reply from MHADA, and withdrawal of the SCN by MPCB, construction re-started. Other letters sent in by MPCB were also reviewed.

The Hon'ble Commission therefore, specifically observed that the position taken by MPCB remains valid unless it is set aside or modified by the Govt. of India. It is also made it clear in the final order passed by the Hon'ble Commission dt.28/3/2006 that if the complainant wants to challenge the stand of the Govt. or of the MPCB, in this connection, they are free to approach the Govt. of India or the concerned Tribunal as the case may be, to challenge the exemption given by the MPCB.

This was an appropriate decision by the Hon'ble Maharashtra State Human Rights Commission, which upheld the stand taken by the MPCB and decided the issue in a broader sense for construction projects, in favour of MPCB. The matter was pleaded by D.T. Devale, Sr.Law Officer with the assistance of Shri S.S. Doke, Regional Officer(P P) and Shri G.N. Mohite, the I/C Regional Officer-Mumbai, Miss. Preetam Tendulkar, Panel Advocate of the Board also appeared in the matter.

#### **AIR POLLUTION IN MUMBAI**

##### **Air Pollution caused due to improper coal handling by M/s.Mercator Lines Pvt. Ltd. Mumbai.**

The complaints of air pollution due to improper coal handling at Haji Bunder were received by the Board. Therefore, initially the Board identified the source of air pollution i.e. M/s.Mercator Lines Ltd., who was handling coal in the port area. The Board had earlier issued directions u/s 31A of the Air (Prevention Control of Pollution) Act,1981 against M/s.Mercator Lines Pvt. Ltd., Mumbai vide letter dt.18/10/2005, directing it to stop the activity of coal handling at Haji Bunder, Mumbai Port Trust. Aggrieved by the said order M/s.Mercator Lines Pvt.Ltd. has filed an appeal against the order dt.18/10/2005 before the Appellate Authority

constituted under the provisions of the Air (Prevention Control of Pollution) Act,1981. The Appellate Authority stayed the execution of the order till further orders.

The Appellate Authority appointed M/s.WAPCOS as per request of the Appellant to monitor the compliance and suggest remedial measures. The Rapid Environment Assessment Report submitted by M/s.WAPCOS to the Appellate Authority in the month of 5/12/2005 was not in conformity with the prevailing environmental regulations and did not cover the required technical aspects. Therefore, the Appellate Authority directed M/S.WAPCOS to consult Laboratories approved by the MoEF and submit an updated report, which was submitted on 2/1/2006, but the Board contested such updating of the report and insisted upon a fresh report by a technical institute like NEERI. The Board has also made it clear that it has already appointed M/s.NEERI to carry out an environmental assessment monitoring of the said area. The Board has also carried out further monitoring and the results of monitoring show that RSPM values are exceeding the specified limit of 150 ug/mg<sup>3</sup> laid down in Schedule-I of the Air (P CP) Act,1981. Since, the non-compliance further continues, further complaints have been received on 5/1/2006 from the Regional Plant Quarantine Station, Ministry of Agriculture, Govt. of India regarding a serious problem of air pollution to the human health and also adversely affecting the working efficiency of the electronic instruments in the Laboratory due to coal handling activities at Haji Bunder. The reports in respect of AAQM at Haji Bunder coal handling area done by M/s.WAPCOS also reveal that the parameters of SPM and RSPM are exceeding the limits and therefore, the Board had to issue proposed directions on 22/2/2006. The Regional Officer, I/C PCI-II, MPCB by his letter dt.12/1/2006 informed the Traffic Manager, Mumbai Port Trust, Mumbai-400 001 to take immediate steps in respect of the complaint of air pollution due to coal handling at Haji Bunder and advised to shift the site of the dumping coal and divert the route of the movement of loaded coal to avoid coal dust pollution in the public interest.

The Board has thereafter extended personal hearing to M/s.Mercator Lines Pvt. Ltd. on 28/2/2006. During the course of personal hearing, M/s.Mercator Lines Pvt. Ltd. has agreed to submit a detailed concrete proposal for carrying out environmental improvement by providing mechanical and modern arrangements for handling of coal at Haji Bunder within 30 days time.

However, till date nothing has been submitted by it and therefore, the Board has no alternative than to issue further final directions to stop coal handling by the said company at Haji Bunder area.

The problem of improper handling of coal at Haji Bunder has not only become sensitive, giving rise to a number of complaints of air pollution by the public at large but it was also discussed at the Floor of Assembly and the Assembly has taken a serious note thereof. The Board therefore constantly monitoring the said area and has initiated further actions to secure the compliance. The appeal is still pending before the Appellate Authority.

This office is therefore of the opinion that based on the final report, final directions can be issued.

### **WATER POLLUTION AT KURKUMBH**

**Order passed by Hon'ble Maharashtra State Human Rights Commission in the matter of complaint of water pollution in the Kurkumbh MIDC Area bearing Case No.635/2001/145 filed by villagers from Kurkumbh Pandhrewadi**

s

**Secretary Environment Deptt. Maharashtra State - 2 Ors. Including Maharashtra Pollution Control Board**

Villagers from Kurkumbh, Pandhrewadi had lodged one complaint about violation of human rights due to pollution being caused from the discharge of waste water from Kurkumbh MIDC. It was alleged that due to discharge of polluted water from the industries in the MIDC Kurkumbh Area, underground drinking water in the said area has become un-potable and therefore, MIDC Kurkumbh has to supply drinking water. However, the MIDC is charging the water bills to the villagers, which should not be charged upon them. It is also contended that damage caused to the crops and land as well as water course, because of pollution has caused irreparable losses.

Hon'ble Maharashtra State Human Rights Commission directed the Secretary, Environment Deptt., Govt. of Maharashtra, Member Secretary, Maharashtra Pollution Control Board and Chief Executive Officer, MIDC to file their report before the Commission. Accordingly, the non-applicants filed their replies and report before the Commission. The reports can be summarized as under

#### **a Environment Deptt. Report -**

The report stated that there are 105 industries in the Kurkumbh MIDC area. Out of that, 66

factories are closed, 3 units are under construction and out of remaining, 36 units, 12 units are temporarily closed and only 24 units are in operation. It was also stated that out of 24 units in operation, 6 units do not generate any pollution. 3 units discharge highly polluted effluent and therefore, the Regional Officer of the MPCB had sent a proposal to Headquarters to take appropriate action. It was also stated that MPCB had initiated appropriate legal actions as per the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and that the Board had been directed to file appropriate cases against the defaulting units. It was made clear that since, majority of them are small scale units, there is a necessity to provide a CETP with assistance from the Central Govt. since an independent effluent treatment plant can not be provided due to financial constraints.

#### **b MPCB report -**

MPCB filed a detailed report giving information on actions initiated by it against the polluting units. These are listed below

a. The Sub-Regional Officer, MPCB, Pune-I collected samples u/s 21 of the Water (Prevention & Control) Act, 1974 and based on the report, filed prosecutions against 5 major polluting industries in the said area before the Hon'ble Chief Judicial Magistrate-Pune Court.

b. The proposed directions as to why the defaulting units causing severe pollution discharge shall not be closed down issued to 5 units in the said area.

c. SCNs issued to 5 units not operating their ETPs properly.

d. Regional Officer, MPCB, Pune also monitored well water in the said area from 8 wells and reported prima facie that the water is not suitable for drinking purposes.

e. Regional Officer also instructed MIDC to upgrade its CETP and maintain & operate it properly. However, since there was some problem in disposal of effluent from CETP, MIDC had stopped collection of effluent from various industries and thereby it was being spread in the nearby area, which gave rise to the complaint from the villagers of Kurkumbh Pandhrewadi.

#### **a Industry Deptt. Govt. of Maharashtra Report -**

In its report dated 20/11/2002 the Industry Deptt., stated that MIDC had prepared an integrated scheme for pollution prevention by making a provision for Rs.10,616 Lakhs, of which Rs.577.77

Lakhs were for Kurkumbh MIDC for laying down collection pipelines and collection tank, Rs.127.76 Lakhs for CETP and Rs.108 Lakhs for tree-plantation. It is also stated that the industries should also operate maintain their ETPs properly so as to transport it through pipelines for CETP.

#### **b MIDC Report :-**

Hon'ble Commission called Chief Executive Officer, MIDC as a witness on 22/11/2002. During discussions, it was revealed that MIDC should upgrade its CETP so as to achieve the standards laid down by the Board MIDC should also make proper disposal arrangement for treated effluent and should supply drinking water to the villagers at concessional rates.

MIDC in turn reported that some of the units are discharging polluted effluent which creates pressure on the CETP. It is also stated that MIDC has decided to upgrade its CETP for which, a one year time frame may be required and more than Rs.50 Lakhs expenditure will have to be incurred. MIDC also undertook a scheme for utilization of treated water and the work of common effluent treatment pipeline and informed that due to objections from the Forests Deptt., Govt. of Maharashtra, the work was delayed. MIDC also informed that on account of the complaints about well water pollution, MIDC has been supplying drinking water at concessional rates since June, 2000. As per report of Maharashtra Directorate of Health Services, Mumbai, the well water contained higher total solid, chlorides, nitrate hardness and therefore, was not fit for drinking purposes.

The Commission specifically observed that in the Environment Deptt. and the Industry Deptt. are jointly responsible to take steps to solve problem of pollution. MPCB should initiate stringent action against the defaulting polluting units including closure. However, MIDC being a nodal agency that provides infrastructure facilities for various industries, the primary responsibility lies with it to provide necessary pipelines for collection of effluent, full-fledged common effluent treatment plant and a proper disposal system for the same. It is specifically observed that MIDC cannot disown its responsibility and shift it on MPCB. It is also stated that being a nodal department, MIDC should work out special scheme for pollution prevention and execution thereof. In case, small scale industries are unable to provide a full fledged treatment plant, MIDC should provide a CETP for them and solve their problem.

The order passed by Hon'ble Maharashtra State Human Rights Commission spells out the role of the MIDC in respect of pollution prevention more particularly with reference to the small scale units and should be followed in proper perspective by the all concerned.

#### **ATER POLL TION BY AN ORGANIC CHEMICALS LTD.**

**Order passed by High Court of Judicature at  
Bombay**

**PIL No.44 2001 filed by**

**Janardan Kundlikrao Pharande Anr.**

**s**

**Maharashtra Pollution Control Board Ors.**

**Ref: Order dt. 2 2006 passed by  
Hon'ble High Court.**

Mr. Janardan K. Pharande Mr. Balasaheb G. Kakde had filed one Public Interest Litigation against MPCB and 4 others including M/s.Vam Organic Chemicals Ltd., Nimbut, Tal Baramati, on the ground that the said unit is carrying on their manufacturing activities in village Nimbut and has been responsible for causing pollution of river Nira due to discharge of effluent from its activities. It is contended that contact with the water of the river Nira has resulted in skin irritation. The animals, who drink the water become sick weak and may die. The water is said to be extremely harmful to the cultivation of land and adversely affects the standing crops. The unit has created lagoons and accumulated highly concentrated effluent, which is percolating into the water of Nira river as well as nearby wells. The other cause was the composting activity started on 28 acres without permission, which is near to public road and human habitation. MPCB had filed a number of affidavits in the said matter stating that Nira river at Nimbut falls under "A-IV" Class of Water. It was also stated in clear-cut terms that some underground percolation from the old lagoons noticed in the nalla and the quality of water in the nalla has deteriorated with respect to parameters such as BOD, COD, which was brought to the notice of the said industry. It was also pointed out that the unit was directed not to discharge any effluent to the river Nira and utilize total spent wash in the process namely Sprannahalator and composting as well as Bio-methanisation plant. The unit is also being asked to empty 18 lagoons in a time bound manner.

Thereafter, Hon'ble High Court has passed order dt.24/10/2001 directing the Board to test the water of river Nira to find out the nature of contamination / pollution and observed that if possible, the cause for pollution may be identified, including its source. If the river is polluted upstream on account of the activities of any other units, it should take action against those units. If it is found that the pollution of the river water is only on account of percolation from the spent wash lagoons, obviously, we have to wait for some time till lagoons are dry. The petitioners are directed to assist the Board in carrying out the compliance of directions issued by the Hon'ble Court. Hon'ble Court also made it clear that the Respondent-Board will submit a report to the Court as to the action taken pursuant to the directions issued by the Court.

Thereafter, the Board had filed joint Affidavit of the Regional Officer and Sub-Regional Officer of the Board at Pune in compliance of the order passed by the Hon'ble Court on 24/11/2001, stating that the distillery of the above unit is overall consuming the effluent generated in Sprannahalator and composting as well as Bio-methanisation plant and made it clear that till lagoons are emptied, some percolations from the old lagoons can not be ruled out, but the Board is taking follow up action in emptying those lagoons in a time bound manner as per the time schedule submitted to the Board by the unit i.e. on or before May, 2003.

The petitioners had filed an Additional Affidavit on 4/2/2002, objecting to the collection of samples by the Respondent-Board and not analyzing the parameters of temperature, colour, odour test as well as arsenic, gross alpha activities gross beta activities etc. in respect of river water. Thereafter, the Regional Officer and Sub-Regional Officer, MPCB, Pune had filed reply on 16/2/2002 to the said Affidavit stating that the Respondent-Industry has provided incineration, bio-methanisation followed by secondary treatment and also provided scientific composting with provision for leachate collection and leak-proof guard pond of sufficient capacity by suitable lining concreting arrangements for covering the compost during rainy season. It was also pointed out that out of 28 parameters mentioned by the petitioners, only, parameters are applicable to A-IV Class of water, which are tested by the Respondent-Board. It is also made clear that the parameters of Arsenic, Gross Alpha activities Gross Beta activities are not analysed on account of not having any facility for analyzing the same with the Board and on

account of these parameters are not source oriented from the Respondent-Industry. It is also made clear that the present effluent generated from the distillery activities totally consumed in the composting and other process and therefore, there is no direct discharge into the nalla / river. Since, the nalla river water have been classified as A-IV Class of water and the results of monitoring show that the quality of water is suitable for best designated usages, there was no necessity to take further action against the Respondent-Industry. The Board has also pointed out that the petitioners have not approached to the Board nor informed to the Board any violations on the part of the Respondent-Industry and the Board has not observed any abnormality in their monitoring. It is also made clear that the grievance of the petitioner is in respect of the old storages of spent wash, for which, the Respondent-Board already directed the distillery to reclaim the said lagoons or make it anaerobic, for which, time is also granted and therefore, Hon'ble High Court specifically observed in its order dt.24/10/2001 that if it is found that the pollution of river water is only on account of percolations from the spent wash stored in the lagoons, we have to wait for some time till lagoons are dried up. However, it was also made clear that if the petitioners find that the Respondent-Industry is discharging effluent into the river or elsewhere, they may bring it to the notice of the Respondent-Board for taking further necessary action.

Thereafter, Hon'ble High Court directed the Board to file affidavit giving present status of the Respondent-Industry in respect of the emptying the 18 lagoons as directed by the Board in a time bound manner. Accordingly, the Regional Officer of the Board at H filed a detailed affidavit on 25/7/2003, pointing out that Dr.Munshilal Gautam, the then Member Secretary alongwith Regional Officer Sub-Regional Officer, MPCB, Pune caused visit inspection of the Respondent-Industry and observed that 12 lagoons were dewatered by February, 2003 by removing the sludge. However, in 6 lagoons the sludge remaining underneath due to slimy nature of the sludge, which makes it impossible to take out the sludge out of the lagoons manually and mechanically. The same can be removed after dried up. It is also pointed out that the Board is keeping constant vigil on the activities of the industry and since, most of lagoons are emptied, and the petition can be disposed off by directing the distillery to remove sludge from the remaining lagoons by 31/3/2004.

Thereafter, the Regional Officer of the Board at

Pune had filed one more Affidavit on 1 /4/2004 giving further progress in respect of reclamation of lagoons, stating that 13 lagoons are already reclaimed successfully and in respect of 3 lagoons, it is pointed out that an almost impervious crust has been formed over contents of these lagoons underneath which the mass remained in slime form. It is also reported that because of its slimy nature, the slurry can not be easily handled due to its viscous and sticky properties. Therefore, the time may be extended for reclamation of the lagoons upto 31/5/2005.

Last affidavit filed by Dr.D. B. Boralkar, Member Secretary of the Board in compliance of the order passed by Hon'ble High Court on 12/1/2006, giving the details of present status of the compliance on the basis of the visit inspection carried out by the Regional Officer Sub-Regional officer, MPCB Pune alongwith the statement showing the results of water quality of Nira river at Nimbut in comparison with A-IV class of standards laid down in the River Policy Notification dt.15/7/2000. It was specifically pointed out that the Respondent-Industry has utilized total spent wash stored / accumulated into the old lagoons for composting purposes as per verification report submitted by the Board officials.

The details of effluent treatment plant were also submitted, stating that nothing is being discharged outside the activities of the industry into the environment and total effluent after primary treatment being utilized in the ferti-irrigation after secondary treatment in part and remaining for composting activity. 16 lagoons have been reclaimed by scrapping totally and two lagoons as well as one pond have been made impervious for further utilization and temporary storage until it is being utilized for composting ferti-irrigation. The Bio-methanisation plant has been made operational, out of total available land, as high as 82.4 % is under cultivation and 73.6 % is cultivated. Therefore, it was prayed that the petition may kindly be disposed off.

Hon'ble High Court after hearing, Dr.D.B. Boralkar, Member Secretary in person on 12/1/2006 has passed a detailed order and observed that the Respondent No.2 industry has complied with the interim directions issued on 17/3/2001 and all the lagoons have been reclaimed by the industry. Therefore, the petition is disposed off without any cost. This is a landmark case law, wherein, Hon'ble High Court has taken into consideration the practical difficulties of the new management, which has undertaken the legacy of the earlier old

management in respect of storage of old spent wash in 18 lagoons on account of the available technology adopted at that time, which got deteriorated. Subsequently, the old company, namely, M/s.Polychem Ltd., which had been closed down was taken over by M/s.Vam Organic Chemicals Ltd. some time in the year, 1 and it has provided above fullfledged treatment disposal arrangements. The said company has not only complied with the consent conditions but also a number of directions issued by the Maharashtra Pollution Control Board including reclamation of 18 lagoons provided by earlier company M/s.Polychem Ltd. Therefore, Hon'ble High Court after monitoring the above case for more than 5 years and on the basis of the report of Dr.D.B. Boralkar, Member Secretary of the Board has come to the conclusion that nothing further remains to be done in the writ petition and therefore, the petition is disposed off without cost.

Shri D. T. Devale, Sr.Law Officer assisted by Mrs.Neelam Kubal, Asstt. Law Officer and Shri V.N. Mundhe, Regional Officer, MPCB, Pune, Shri P.P. Dhaygude Shri P.B. Barbole, Sub-Regional Officers at Pune have taken active part in securing the compliance of the orders passed by the Hon'ble Court from time to time under the guidance given by Dr.D.B. Boralkar, Member Secretary of the Board.

#### **HA ARDO S ASTE MANAGEMENT**

**Maharashtra Pollution Control Board's successful pursuation to secure compliance of the show cause notice issued to M s. Dabhol Power Co. An anwel Tal:Guhagar Dist:Ratnagiri for deposit of Rs.2 6 000 - or its e uivalent amount in Indian Rupees towards cost of remediation MPCB's recovery of S Rs.2 6 000 - or its e uivalent in Indian Rupees from M s. Dabhol Power co. .**

Maharashtra Pollution Control Board had granted Consent to Establish to M/s.Dabhol Power Co.(DPC), Anjanwel, Tal Guhagar, Dist Ratnagiri on 16/3/1 6 for a period upto commissioning of the unit subject to certain terms conditions. One of the important conditions was that necessary equipments to meet the requirement of pollution control legislations shall be installed before commercial generation of power by M/s.DPC into MSEB Grid. However, M/s.DPC had started both the phases i.e. Phase-I Phase-II without obtaining necessary written permission from the Maharashtra Pollution Control Board in the month of January, 1 January, 2001 respectively. Therefore, M/s.DPC was directed to close down their

commercial production at that time and subsequently, allowed to restart it only after ensuring the compliance of the conditions of Consent to Establish. During the construction of the plant, there were known leakages from the day tanks of an unknown volume of Hydrocarbons during November, 1988 to June, 1990. One complaint was received in the month of December, 1990 from Mrs.Vaidya that her well got polluted and well water smells like diesel / kerosene. The complaint was primarily investigated by the Sub-Regional Officer of the Board at Ratnagiri and on the basis of his investigation he had called necessary explanation from M/S.DPC about the well water pollution. M/s.DPC had appointed M/s.GSDA for investigating the matter, but the GSDA was unable to find out proper source of well water pollution. Subsequently, M/s.DPC had appointed an Australian Expert Co. namely M/s.Golder Associates Co. to investigate the matter and the source of oil coming in the wells. M/s.Golder Associates Co. had submitted a draft report on Hydrocarbon contamination at spring water located at West side of M/s.DPC. It had reported that the Hydrocarbons appeared to be diesel or kerosene and were evident as a film or globules of oil on the surface of the well water. A second spring also shown traces of contamination. It was also reported that the spring water is being used for drinking water and irrigation by the village of Brahmanwadi. Therefore, M/s.DPC arranged an alternate water supply scheme for the said village and also installed an oil water separator to remove the free-phase Hydrocarbons from the spring water. It was specifically observed that the DPC is the only industry using liquid fuel in the area. Finger print analysis of the Hydrocarbons had been performed at an offsite Laboratory using Gas Chromatography (GC). The results indicate that the free-phase product observed in the spring water could be a mixture of diesel and a lighter fraction fuel such as Naptha. Diesel & Naptha had both been stored in the day tanks. The Sub-Regional Officer of the Board at Ratnagiri also investigated the matter and reported that the construction of the Dabhol Power Project was being jointly developed by the M/s.Enron Corporation, the Maharashtra State Electricity Board and M/s.Bechtel Corporation in the State of Maharashtra. Phase-I of the project was completed in May, 1988 and involved construction of 65 MW combined cycle power station fuelled by Distillate & Naptha. Phase-II of the project with the capacity of 2400 MW fuelled by LNG.

Thereafter, Dr.Munshilal Gautam, the then Member Secretary of the Board extended personal hearing to M/s.DPC and its shareholders and on the basis of the above reports, encashed the bank guarantee of Rs.10,00,000/- and had issued show cause notice as to why they should not be prosecuted on account of above non-compliances and not taking any steps for restoring the quality of well water. M/s.DPC & its shareholders had filed replies stating that Mr.Donald Stermmer was a Non-Executive Director appointed by M/s.Energy Enterprises, Mauritius a 10% shareholder of M/s.DPC during all relevant period and was a permanent resident of USA. Mr.Kevin Walsh & Mr.Peter Freeman for GE Capital Services Structured Finance Group, INC. replied that they were not involved either with management or administration of M/s.DPC. It is also stated that the present Directors do not have any access to the plant. They expressed their commitment to implement remedial measures, if require, to restore the alleged quality of well water. After going through the correspondence, it has been observed that M/s.DPC having 50% of the shares of Enron is the main violator. Various persons were incharge of the plant including Mr.Donald C. Stermmer.

Besides that, Maharashtra Power Development Corpn., a subsidiary of Maharashtra State Electricity Board having 30% of shares is also one of the violator and responsible for remedial measures. Similarly, after going through the report of M/s.Golder Associates, it has been revealed that M/s.Bechtel Corporation is one of the Developer and also involved in construction of Phase-I & Phase-II, which is also responsible for the above leakages and was taking remedial measures at that time. M/s.Capital India Power Mauritius-I & M/s.Energy Enterprises (Mauritius) Co. have been appointed on 4<sup>th</sup> June, 2002 and stated that they have been kept in dark about the leakage incidents and remedial measures. Therefore, the Board has decided to fix up responsibility upon the following shareholders 1) M/s.Dabhol Power Co. through its permanent Director 2) Maharashtra Power Development Corpn. through its parent company 3) M/s.Bechtel Corpn 4) M/s.Capital India Power Mauritius Co c/o M/s.GE Capital Services. Accordingly, show cause notices issued on 11/7/2005 to cause deposit US \$ Rs.2,86,000/- or its equivalent in Indian Rupees with the Board towards the cost of remediation on the basis of report on water pollution at Brahmanwadi, Anjanwel, prepared by M/s.Thermo Retec Consulting Corpn. Submitted to the Board on

After issuance of show cause notice, the shareholders of M/s.Dabhol Power Co.Ltd. have deposited the following amount with the Board

1) M/s.Maharashtra Power Development Corpn Ltd., Hong Kong Bldg., M.G.Road, Fort, Mumbai.	US 40469 INR 17,60,402
2) M/s.Energy Enterprise Mauritius Company Street, 22 <sup>nd</sup> Floor, San-Francisco, California CA 94111.	US 122755.50 INR 53,35,262/-
3) Capital India Power Mauritius Company C/o M/s.G.E. Capital Services Structured, Finance Group Inc., 120, Long Bldg. Road, 30/22, Stamford, CT 06927.	US 122755.50 INR 53,32,807/-

27/3/2002, otherwise, to face prosecution.

After issuance of show cause notice, the shareholders of M/s. Dabhol Power Co.Ltd. have deposited the following amount with the Board

Since, a new company, M/s.Ratnagiri Gas Power Corporation was set up for revival of the major power project (formerly known as M/s.Dabhol Power Co.), one of the pre-condition was that before revival, all pending litigations must be closed. Dr.D.B. Boralkar, Member Secretary of the Board after a prolonged thought and a series of meetings at top level has decided to invoke the provisions of the amended Environment (Protection) Act, 1986 under the Hazardous Wastes (Management Handling) Rules, 1989 (as amended in May, 2003), which provides for levy of charges towards cost of remediation.

After receipt of the cost of remediation, the Board has appointed Mr.A.B. Ranpise, Jr.Research Fellow under the project of remediation w.e.f. 3<sup>rd</sup> October, 2005 for necessary monitoring to prepare preliminary report about the remedial measures. The work is in progress. Because of longstanding persuasion by Shri D.T. Devale, Sr.Law Officer of the Board at H , Shri G.S. Fulari, Sub-Regional Officer under the guidance of Dr.Munshilal Gautam, the then Member Secretary, Dr.D.B. Boralkar, the present Member Secretary and the then Principal Secretary, Environment Deptt., Govt. of Maharashtra, the Board could have able to decide finally the issue of pollution of wells and remediation successfully.

#### **MILL LANDS IN MUMBAI**

**1.Order passed by Hon'ble High Court of Judicature at Bombay Ordinary Original Civil Jurisdiction in the PIL No.4 2 2005 filed by Bombay Environmental Action Group Anr.**

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**State of Maharashtra 31 Ors.**

**2.Order passed by Hon'ble Supreme Court of**

**India in the Petition s for Special Leave to Appeal Civil No s .23040 2005 from the Judgment Order dated 1 10 2005 in the writ Petition No.4 2 2005 of the High Court of Mumbai.**

**1 M s.Bombay Environmental Action Group Anr. had filed one Public Interest Litigation bearing writ Petition No.4 2 2005 at Mumbai** on behalf of the residents of Mumbai to protect their interests and to improve the quality of life in Mumbai, which has stated to be drastically deteriorated during last 15 years. It is also said that the petition is filed to prevent further serious damage to the town planning and ecology so as to avoid an irretrievable break down of the city. The main ground for filing of the petition was that the amendment to the Development Control Regulations for Greater Mumbai ("The DC Regulations") carried out in 2001. The grounds of objections raised by the petitioner and the prayers can be summarized as under -

a. Under Regulation-58 of the Development Control Regulations, 1961, as originally framed, the redevelopment of the mill lands area was permitted with the intention of using this otherwise unutilized land for public purposes, so that about 33% would be turned over to BMC for use as open space another 33% to MHADA Public Housing Public Sector Undertakings for their own housing and the remaining 33% would be retained by the Mill for development for commercial residential purposes.

b. It is DCR-58 that has been amended in 2001 and subject matter of challenge in the above petition. The amendment was brought into effect ostensibly to implement the recommendations made in a report of an Expert Committee appointed in 1966, which recommended holistic planning integrated development in respect of the Mill land area. It is alleged that in drastically reducing the area available

for such development, the amendment to DCR-58 is the antithesis of such recommendations.

c. It is also stated that the amendment to DCR-58 is without jurisdiction and / or in excess of jurisdiction, a colourable exercise of power, a fraud on statute / power, illegal, unlawful, arbitrary, unreasonable is ultra-virus the provisions of MRTTP Act Constitution of India.

d. It is contended that the effect of amendment to DCR-58 is that the city of Mumbai will be deprived of the opportunity of utilizing the available Mill lands for the urgent acute needs of the city, including inter-alia open space, mass-housing infrastructure.

e. It is also mentioned that DCR-58 allows for large tracts of erstwhile Mills land to be made available for private entirely commercial development in a piecemeal fashion, without any centralized planning for supervision and this was being done by reducing the total land available for redevelopment while ostensibly retaining the inter-se proportions of land utilization.

f. The petitioners therefore challenged the order dt.28/3/2001 and consequent amendment to DC Regulation 58, in particular, clauses A-6 and C-1(5) of the Schedule-1 of the said order dt.28/3/2001 as ultra-vires the MRTTP Act, illegal, unconstitutional, void, ab-initio and non-east. The petitioner therefore pray for appropriate writ, order or directions striking down the said order dated 28/3/2001.

g. The petitioner also pray for order, directions or injunction restraining the Respondent No.1 2 (State of Maharashtra through Urban Development Deptt. Municipal Corporation of Grater Mumbai) from permitting any development / redevelopment of Mill lands and / or any construction thereon without environmental clearance under the EA Notification dt.27/1/1 4 as amended on 7/7/2004 and/or in violations of the terms conditions of such clearance as well as from granting any permission under DCR 58 on the basis of the purported clarification dated 28/3/2003.

Maharashtra Pollution Control Board had been added as the Respondent No.20 in the said petition. The Board had filed its preliminary affidavit on 18/8/2005 through the Sub-Regional Officer and I/C of Regional Office-Mumbai, giving the details of the legal requirement and the procedure being followed by the Board in conducting public hearing as per EIA Notification, 1 4 as well as the legal requirements of the Notification dt.7/7/2004. The

Board has also furnished the details about the applications received from the project proponents seeking environmental clearance and the steps taken by the Board on the said applications for conducting public hearing. The statement indicating the status of compliance of the Notification in respect of 17 construction projects was also submitted alongwith Affidavit dtd.18/8/2005.

Thereafter, during the hearing of the matter on 24/8/2005, the Hon'ble Court considered the status of compliance of Notification in respect of 17 construction projects and directed the Maharashtra Pollution Control Board to visit all 56 construction sites in Mumbai and submit full report in respect of compliance of the environmental regulations, issuance of Intimation of Disapproval (IOD) and Commencement Certificate (CC) issued by the Municipal Corporation of Greater Mumbai (MCGM) and present status of development work on site. The Board had carried out the inspections of all 56 Mills in Mumbai through its officers (Shri S.S. Doke, Regional Officer(P P), Shri G.N. Mohite, the then I/C Regional Officer-Mumbai, Shri B.D. Wadde, the then Sub-Regional Officer-Mumbai, Shri I. H. Thakre Shri D.P. Waghmare Field Officers at Mumbai Shri S.B. Patil, Field Inspector). The Board has prepared the report on construction projects on Mill lands in Mumbai (August 30, 2005) under the guidance of Shri A.B. Jain, Sr.Law Officer and Shri R.V. Govilkar, Sr.Counsel of the Board. The report was submitted to Hon'ble High Court of Judicature at Mumbai in the above petition alongwith copies of Affidavits filed by the Board on 18/8/2005 and Additional Affidavit dt.1 /8/2005.

After hearing all the Respondents for a considerable time, Hon'ble High Court of Judicature at Bombay, Bench at Mumbai (Coram Dr.S.Radhakrishnan S.C. Dharmadhikari, JJ.) delivered a comprehensive Judgment Order dt.15/ /2005, which was pronounced on 17/10/2005. While passing Judgment Order, the Hon'ble High Court had observed as under

a. MCGM has not ensured at the time of sanctioning the building plans the provisions of public amenities as per DCR 27, which is also made clear in DCR 58. MCGM very candidly admits that non of the developers are providing any "public amenities" as per its Affidavit dated 15/ /2005.

b. MCGM took no steps whatsoever with regard to the compliance of EIA Notification until the Court directed during the final hearing of the above petition. In spite of our categorical directions,

MCGM filed an Affidavit only on 15/ /2005, giving vague particulars of “Green Areas” without clearly indicating “Public Greens” “Private Greens”

c. MCGM has not ensured that all the Mill owners should provide free housing of 225 sq.ft.to the occupants, and in reality non of the sanctioned plans provide for any housing for Mill workers / Occupants, though mandatory it ought to have been provided under DCR 58 (7).

d. MCGM has not ensured surrendering of lands for “Open Spaces” and “Public Housing” as per amended DCR 58, at the time of issuance of Commencement Certificate. MCGM ought to have ensured such a physical surrender, while issuing such a commencement to the Developers, making it clear that only after such a physical surrender of such lands earmarked as “Open Spaces” and “public housing”, any construction can commenced.

e. Neither the Bombay Municipal Corpn. nor the State of Maharashtra took any steps to ensure strict compliance of the EIA Notification. Even the Maharashtra Pollution Control Board was lackadaisical in its approach for strict implementation of the said Notification. Virtually, all the three Respondents had abdicated their legal obligations and duties in implementing the aforesaid EIA Notification.

f. Even, the so called public hearing conducted by the Maharashtra Pollution Control Board as per EIA Notification was not at all satisfactory. Such a hearing must be held after a sufficient notice prominently published in Newspapers with wide circulation. MPCB should also utilize the Television Media, to give proper publicity regarding such public hearing. The main objective of the public hearing is to know all kinds of objections, so as to take a fair decision.

g. In view of the facts disclosed in the case and in view of the totally casual lackadaisical approach by MPCB, BMC State of Maharashtra, it would be just proper if public hearings are conducted by the MoEF, GOI itself and not to delegate to the State Pollution Control Board, in view of the enormity of ecological balance and environmental degradation, having regard to the “Precautionary Principle” “Sustainable Development”.

The Hon'ble High Court therefore directed the Respondent No.1 i.e. State of Maharashtra to take immediate remedial measures with regard to all the aspects, as MCGM has completely abdicated all its basic functions. The Hon'ble Court has come to the

conclusion that DCR 58 (1) (b), “Open lands” would include lands after demolition of structures. Clarification dated 28/3/2003 is clearly violative of Section 37 of MRTP Act Article 21 of the Constitution of India. However, the issue as to whether amended DCR 58 is contrary to Section 37 of the MRTP Act or Article 21 of the Constitution of India has kept open by the Hon'ble High Court. But, Hon'ble High Court clearly observed that all constructions carried out by various developers are clearly in violation of EIA Notification, 1 4 as amended on 7/7/2004, as admittedly none of them have obtained clearance from Ministry of Environment Forests, Govt. of India (MoEF, GOI). It is also held that all sales of Mill lands carried out by NTC are clearly contrary to the Hon'ble Supreme Court's order dt. 27/ /2002 11/5/2005 and contrary to the sanctioned BIFR schemes.

**2 The Bombay Dyeing Manufacturing Co.Ltd. had filed petition for Special Leave to Appeal before Hon'ble Supreme Court of India**, challenging the validity legality of the Judgment Order dt.17/10/2005 passed by the Hon'ble High Court of Judicature at Bombay, Bench at Mumbai on the ground that the Public Interest Litigation not maintainable on account of Waiver and/or Acquiescence on the part of the Respondent Nos.1 2 (original petitioners) and contended that

a. Hon'ble High Court erred in non-dealing with the petitioners' submission relating to the Waiver and/or Acquiescence on the part of the Respondent Nos.1 2 (original petitioners).

b. The Respondent Nos.1 2 filed the petition before Hon'ble High Court as a Public Interest Litigation and not as a person or body directly affected, did not raise any suggestions or objections when the State Govt. called for the same in relation to the proposed amendment of DCR 58 of 1 1 by issuing separate 3 public notices as required under the provisions of the Maharashtra Regional Town Planning Act, 1 66. Even prior to the issuance of the said public notice, the entire issue relating to the said amendment was in public domain and articles relating to the same had appeared in various newspapers from the beginning of 2000. The State Govt. received 24 objections and suggestions in pursuance of their public notice, which are considered before issuing amendment but the Respondent Nos.1 2 have not filed any objections.

c. Delay / latches of the Respondent Nos.1 2 at

least for four years unexplained and therefore, the Hon'ble High Court erred in holding that writ petition can not be dismissed solely on the ground of delay latches.

d. Hon'ble High Court failed to appreciate that Respondent Nos.1 & 2 have categorically stated that the meaning & purport of amended DCR 58 of 2001 was crystal clear to them when the same was brought into force in March, 2001.

e. Hon'ble High Court failed to appreciate the chronology of events.

MPCB had filed Affidavit in Reply on behalf of Respondent No.27, stating that the projects fulfilling the criteria laid down in the Notification are required to follow the procedure as laid down under EIA Notification of 1 & 4 as amended. The projects, which are undertaken prior to the issuance of Notification and where the work has come upto plinth level as on 7<sup>th</sup> July, 2004 are not required to obtain environment clearance from MoEF, GOI. Besides the criterias laid down in the Notification, no further guidelines have been issued by the MoEF, GOI. As far as the city of Mumbai is concerned, the Municipal Corporation of Greater Mumbai(MCGM), Mumbai Metropolitan Regional Development Authority (MMRDA), Slum Rehabilitation Authority (SRA) are the Planning Authorities under the Laws pertaining to the Town Planning. All the projects of construction whether residential or otherwise are required to be submitted to the concerned Authority and the plans are sanctioned by such Authorities as per the DC Regulations.

As far as the MPCB is concerned, it is not a Planning Authority having powers to sanction or approve plans for construction of any residential, non-residential, commercial or other projects. Therefore, the magnitude, the scope, the nature the status of any construction project was not brought to the notice of the MPCB by the Town Planners or the Project Proponents, unless until any specific project is announced, which needs assessment of environment impact under the relevant Notification dt.7/7/2004 and application is made to the MPCB, otherwise, there is no occasion for MPCB to deal with it. As far as the MPCB is concerned, it is entrusted with the task of holding public hearings, to gather facts & information for and against the proposed construction projects and as per the directions / instructions / guidelines issued by the MoEF, GOI, the role of the MPCB is restricted to gathering information through the public hearing and submitting report to MoEF,

GOI for further assessment, verification subsequent grant of environment clearance. The Authority to grant environment clearance is with MoEF, GOI.

It was also brought to the notice of the Court that though there were allegations about new construction projects having concerned on the land belonging to the Textile Mills, without getting the clearance/permission from the MoEF, GOI, since non of these new construction projects were brought to the notice of the MPCB, the knowledge about the new construction projects at some sites was not available with the Board. Since, most of the project proponents not approached to the Board and applied to the Board for public hearing, there were no further steps or procedure of public hearing. However, subsequently the Board had appointed a team of Technical Officers and accordingly, carried out an extensive survey of 56 Mills and submitted a detailed report to Hon'ble High Court. The Board had also given wide publicity in the Newspapers about the EIA Notification and public hearing.

Regarding the observations of Hon'ble High Court in the Judgment & Order dt.17/10/2005 about MPCB, the Board has submitted that

a. MPCB not being a Planning Authority did not receive any information or intimation with regard to any new project, which would be covered under EIA Notification dt.7/7/2004, it would have been facilitating of the Planning Authorities not to proceed any further sanctioning of the plans for new constructions unless until the requisite clearance was obtained from the MoEF, GOI.

b. It is primary responsibility of the project proponents to comply with the regulations as may be applicable to them. Had all the project proponents acted in pursuance of the Notification, the MPCB would have been seized of the matter and the procedure for conducting public hearing would have been adopted. Initially, only one project proponent amongst the Mill Land Owners applied for public hearing and consent to establish. However, subsequently after MPCB survey, all of them have applied for public hearing.

c. MPCB had given wide publicity in the newspapers by issuing public notices informing about the project, date, venue & time of public hearing and also put on the official website of the MPCB. Further copies of relevant information kept in public offices like Environment Deptt., Govt. of Maharashtra, concerned Dist.Collector & Regional Office of the Board. Total 43 public hearing have

been conducted and reports are submitted to the MoEF, GOI. MPCB has followed procedure in EIA Notification.

d. As far as new construction projects for residential purposes were not within the sphere of the activities of the MPCB for assessing the environment impact as compared to the industrial project. In case of industrial projects, before any project would take any steps for establishment, it required to obtain consent to establish and then consent to operate. Therefore, MPCB know the magnitude and status of industrial projects as compared to the residential construction project. The stages of consent to establish and consent to operate the industrial projects are not applicable in case of residential project, unless covered under EIA Notification dt.7/7/2004

e. It is further humbly submitted that there was no abdication in any manner whatsoever by the MPCB in discharging its legal obligations and duties in implementing the EIA Notification dt.7/7/2004. Therefore, it was prayed that the observations in paragraph 266, 267 & 268 in the High Court Judgment dt.17/10/2005 are not justified on the facts available and may be reviewed and reconsidered appropriately.

Hon'ble Supreme Court of India granted permission to file SLP and issued notices to all the Respondents. As agreed to by the Learned Counsel appealing for all the parties, it was decided that the matter should be disposed off finally as expeditiously as possible. Initially, no interim order for stay was granted. However, after hearing the Learned Counsel for the Parties on the grant of interim relief, Hon'ble Supreme Court directed stay of the operation of para 28 (e) of the High Court's Judgment Order dt.17/10/2005 on 14/12/2005. The interim order passed subject to the condition that

1. The interim order shall be at the risk and costs of the applicants'.
2. The petitioners may file applications for grant of sanction of building plans and / or pursue the matter further, if such applications have been filed with the MCGM or any other statutory Authorities, as the case may be.
3. They may in the event building plans are sanctioned, file appropriate applications for environmental clearance and the same may be processed by the appropriate Authorities.
4. Any further construction and / or creation of any third party rights by the Mill owners will be at

their own risk wherefore they would not claim any equity whatsoever and further more the same shall be subject to the orders of the Court.

5. However, any new application for grant of approval of any layouts, issue of IODs or Commencement Certificates may be processed but no constructions shall be carried on pursuant thereto or in furtherance thereof. While passing orders on the applications for sanction in cases of the applicants, who are affected by clause (e) of the Judgment, the Planning Authority shall proceed on the basis of DCR 58 as amended in the year, 2001 and as clarified by the State of Maharashtra, is in force and not in terms of the Judgment Order dt.17/10/2005.

6. The applicants may carry on with the demolition works on the property and may for protection of their lands raise boundary walls.

Recently, Hon'ble Supreme Court of India allowed Special Leave Petition and upheld the amendments made by the State Govt. in DCR 58 in the year, 2001. The Judgment Order is yet to be received.

### **MITHI RIVER CASE**

#### **Order passed in the PIL writ Petition**

**No.2116 2005 filed by**

**Shri Kirit Somaiya**

**s**

**State of Maharashtra Ors.**

Mr.Kirit Somaiya, EX-MP has filed the above Public Interest Litigation with a view to bring to the notice of Hon'ble High Court the abject apathy and utter negligence on the part of the Respondents to deal with the problem of Mithi river pollution and the lapses & omissions on the part of various Authorities while dealing with the illegal encroachment and unauthorized units, which have reduced the Mithi River to a gutter nullah. The following facts are brought to the notice of the court in the petition.

- a) It is stated that he has taken up the issue of large scale pollution of Mithi river, which caused constant floods on many parts of the constituency with Govt. Authorities. He had lodged a complaint with the Central Pollution Control Board informing that the Mithi river adjoining the Mumbai Airport flowing from East to West has become gutter nullah.
- c) All the nearby industries throwing their garbage in the Mithi river. MCGM has also failed to treat the sewage water, which flows in the Mithi river was itself over-polluted. He had several personal

meetings with the other Authorities to discuss pursue the matter, but, no concrete steps are taken till date. Unprecedented rain falls on 26/7/2005 received by the city of Mumbai, submerged several portion of the city of Mumbai. The worst affected areas were in around Mithi river.

d) The total inaction on the part of the Respondents not responding to the reports, recommendations, directions correspondence to remedy the pollution of Mithi river, even after a period of almost 2 years is unjust and unpardonable, inter-alia, because such delay is causing tremendous loss of life, livelihood, property, health hygiene to thousands of citizens of Mumbai, living in around the areas through which the Mithi river flows.

e) It is, therefore, contended that the lapses omissions on the part of the Respondents in not dealing with several unauthorized units encroachments have reduced the Mithi river to a "Gutter Nullah", shows abject, apathy towards the plight of the people living in around the areas through which the Mithi river flows and presents the constant danger of repetition tragic events ensuing heavy rain falls on 26/7/2005.

f) The petitioner therefore prayed for issue of a Writ of Mandamus or any other appropriate writ or direction, directing the Respondents to take concrete steps to implement their recommendations and directions made by the Govt. of India through MoEF and to remedy the large scale pollution of Mithi river in order to avert the future repletion the tragic events ensuing heavy rain fall of 26/7/2005 in Mumbai. Further to direct the Respondents to take appropriate steps for dealing with several unauthorized units and encroachments and stop them from discharging their sewage water in the Mithi river and properly treat this sewage, if any discharge in the Mithi river at all and to take all other appropriate steps for the purposes of the protection of the Mithi river. The petitioner also prayed for an appointment of a Court Commissioner to oversee, supervise superintend the work of Committee to be appointed consisting of senior officials of the Respondents to prepare a Plan of Action to clean the Mithi river and to deal with illegal encroachments expeditiously.

The Respondent-Board had filed an Affidavit in Reply to the petition through Shri G.N. Mohite, Sub-Regional Officer, Mumbai-1 and holding charge of Regional Office, MPCB, Mumbai on 30/8/2005, sharing the concern of the petitioner about pollution of Mithi river and the steps required to be taken for cleaning up of the river. It

was brought on record that there are large number of unauthorized industrial units / traders, who are involved in reprocessing of waste oil/ used oil, manufacturing of grease from waste oil, storage, handling washing of drums and barrels containing toxic material in the vicinity of Mithi river, these unauthorized units are mainly located in the part of Dharavi, Mahim Kurla area and on the banks of Mithi river. It was also reported that besides the discharge of untreated industrial / trade effluent, large quantity of untreated sewage is also disposed off by the residents residing on both the banks of Mithi river and nearby areas, mainly, unauthorized hutment dwellers. It was further

informed in the Affidavit that the Municipal Corporation of Greater Mumbai has not provided requisite sewerage system followed by sewage treatment plants for proper collection, conveyance treatment of sewage and there are many missing links, where sewage system is not placed or not functional including most part of Mithi river area. The Board had conducted survey of unauthorized / illegal units / traders, handling hazardous wastes oil / ferrous / non-ferrous scrap etc. in Kurla-Kalina Area in March, 2001 and identified 146 unauthorised industrial units / wastes oil/scrap traders carrying out their business on the banks of Mithi river. They were without proper license/s or NOC/s from the statutory Authorities. Some of them having the Shops Establishment License. The MPCB consent has not been obtained by these unauthorized illegal units. Since, these units are not in organized sector in the Mumbai Municipal Corpn. area, the MCGM to initiate legal action against these units as they directly or indirectly pollute Mithi river by way of washing drums throwing the oil sludge etc. MPCB also brought on record the observations regarding the water quality on the basis of the monitoring carried out in the year, 2001 2002, stating that the water quality was totally contaminated. The joint inspection was carried out by the MPCB with the CPCB in March, 2003, wherein it was observed that the nearby unauthorized industries are throwing garbage in the Mithi river, MCGM had diverted nullah carrying

Municipal sewage in the Mithi river resulting in contamination of the river water. The pollution was being caused by illegal activities such as oil processing, drum washing on the river's stretch from Kurla-Mahim, having tidal influence. The joint team recommended that a detailed survey has to be repeated to identify additional unauthorized units and to prepare a fresh / updated list of polluters, to clean the river, stop polluttional discharge, to provide adequate suitable STP and a time bound

action plan for necessary implementation involving various concerned authorities like MCGM, Collector, Mumbai Suburb as well as MPCB.

Thereafter, MPCB engaged the expert services of M/s.Klean Environment Services Pvt. Ltd., Mumbai to monitor 20 points along the stretch of Mithi river, to collect analysis samples and submit report by June, 2004 on the Mithi river water quality, sludge quality quantity as well as short term long term measures to control pollution of Mithi river. M/s.Klean Environment Consultants Pvt.Ltd. recommended short term long term measures, i.e. immediate closure of all the unauthorized activities discharging wastes, provide proper garbage collection system to prevent dumping thereof into the river as short term measures and to plan for sewers on both the banks of the Mithi river with STPs at various locations, debris the entire length of Mithi river bed to improve its carrying capacity and to provide proper garbage collection stations for the benefit of hutment dwellers. It was proposed that further pollution of Mithi river was to be prevented and river was to be resorted to its original status with the help of MCGM, MMRDA, Collector, Mumbai

Suburb. Similarly, from the CRZ point of view, it was suggested to discuss the issue with MCZMA and Urban Development Deptt., Govt. of Maharashtra. M/s.Klean Environment Consultants Pvt.Ltd. was further assigned the study with reference to identify illegal industries and unlicensed activities, discharging industrial waste into Mithi river, collection of samples and to prepare comprehensive report. The Board has come to the conclusion that there is an urgent need to take remedial measures for cleaning up of the river and to increase the carrying capacity of Mithi river for free flow of water.

Hon'ble High Court of Judicature at Mumbai had issued directions to the petitioner on 17<sup>th</sup> Aug.2005. Accordingly, the petitioner had placed on record a comprehensive action plan and also highlighted the original status of Mithi river along with the present status of the river as well as revival plan of the river. It was specifically suggested by the petitioner that the river can be revived provided the following steps are taken immediately.

- (I) Prevention of dumping of solid waste.
- (II) De-silting of the River
- (III) Stoppage of encroachment of hutment
- (IV) Control of domestic sewage
- (V) Prevention of illegal oil processors and

industrial manufacturing and processing units, (VI) Widening of River, control of pollution and prevention of illegal diversions of the River by Air port authority and MMRDA.

The petitioner has suggested the actions to be initiated by the Air port authority, State Govt., MMRDA, Collector, Bombay Municipal Corporation and Maharashtra Pollution Control Board. The petitioner also recommended some directions in order to redress the problem of pollution and degeneration of the Mithi river caused by a variety of reasons such as the discharge of industrial effluents, oil, domestic waste, dumping, diversions etc. After hearing all the respondents, Hon'ble High Court directed the respondents to identify all illegal, unlicensed commercial units on the banks of Mithi river and issued following directions to the Maharashtra Pollution Control Board.

- 1) The Maharashtra Pollution Control Board to identify all illegal, unlicensed commercial units on the banks of Mithi River. The concerned authorities are directed to give them notices within ten days from the date of order passed by the Hon'ble High Court.
- 2) To take all necessary steps to ensure a check on the daily discharge of waste, effluents, dumping activities and prosecute the offenders under the provisions of the Environment (Protection) Act 1986 and the Water Act 1974.
- 3) To file reply affidavit within three weeks from the date issuance of the aforesaid order.
- 4) MCGM is also directed to ensure that no new encroachments or industrial activities on the river bank are permitted. No new licenses for industrial activities on the bank of river shall be issued without the permission of the Court. MCGM to ensure that adequate numbers of temporary latrines are constructed to avoid people using the river/its banks as a public toilet.
- 5) Advocate General was directed to inform the Court on next date of hearing what steps have been taken by the high powered committee. The petitioner's efforts on preparation of comprehensive action report appreciated by the Court.

The Board had filed the 2<sup>nd</sup> affidavit in compliance of the order passed by the Hon'ble Court dated 31/08/2005 about the steps and the actions taken by the Board, on 22/0 /2005, which are reproduced as under

- a) It is brought on record that 8 teams consisting of 28 Technical Officers, 4 Senior level Officers (Scientific, Legal Technical) were constituted.
- b) The teams started survey along the banks of the Mithi river from its origin i.e. Vihar Lake upto confluence i.e. the place where the river meets the sea at Mahim. About 160 units were identified which were carrying out their activities without consent or authorization from the Maharashtra Pollution Control Board.
- c) The notices were issued with proposed directions to such units. After receipt of replies, the replied units were issued notices to attend the hearing. The units which have not replied to the show cause notices/proposed directions had been directed to closed down their activities M/s. Reliance Energy Ltd., and MCGM directed to disconnect electricity/water supply.
- d) The Board has also issued directions to the Municipal Corporation of Greater Mumbai to take steps, actions to prevent, abate and control pollution.

It was further submitted to the Court that the area of survey along the banks of Mithi river is a vast stretch of land and longer time will be require to complete the survey.

Thereafter, Hon'ble High Court of Judicature at Mumbai directed on 03/10/2005 the BMC, the Collector and other concerned public authorities to ensure that unauthorized encroachments be removed in accordance with Law and also to ensure meticulous compliance of its previous orders.

The Board had filed third affidavit in compliance of the order passed on 31/08/2005 and 03/10/2005, giving details of further actions initiated by it against illegal, unlicensed commercial units on the bank of river. The Board had issued directions of closure to the unauthorized units after giving an opportunity of hearing. M/s. Reliance Energy Ltd. and MCGM were directed to disconnect electricity/water supply. It was specifically reported that since M/s. Reliance Energy Ltd. had not disconnected electric supply as per earlier directions, prosecution notice was issued to it. It was also reported that the survey work is being continued.

Hon'ble High Court directed Mithi River Development and Protection Authority (MRDPA) to file an affidavit by its order dated 22/02/2006. Accordingly, the Member Secretary and Project Director Dr. Vikas Sadanand Tondwalkar filed affidavit. Thereafter, Hon'ble High Court has

passed order on 1/03/2006 and directed the Collector, Mumbai suburban districts to ensure the removal of 3600 encroachers having their structures within 30 meters width on either side of the river by 31/05/2006 and also to rehabilitate them by that date. As regards the unauthorized industrial units identified by the Maharashtra Pollution Control Board, Hon'ble High Court directed the Board to take appropriate action including the closure of these industrial units as early as possible by observing the due process of law in that regard. Regarding the proposal of MRDPA to implement the Mithi river development works in two faces, Hon'ble High Court directed that the entire work which comprise of resettlement and rehabilitation of project affected persons, to be completed by 31/05/2006 and the work of deepening, widening and desilting of Mithi river shall be undertaken after the monsoon of 2006. Hon'ble High Court also directed the impediment of the Reliance Energy Ltd., as party respondent.

MPCB had filed its 4<sup>th</sup> Affidavit on 28/02/2006 through Shri. P. P. Nandusekar, the Principal Scientific Officer of the Board. In compliance of the orders passed by the Hon'ble Court on 31/8/2005, 3/10/2005 22/2/2006, giving the details of further actions initiated by the Respondent No.8 against the illegal, unlicensed commercial units on the banks of the Mithi river. The details can be summarized as under

- a) The Respondent-Board has continued its survey and collected information about a list of unlicensed units identified by the MCGM and decided to follow the principles of natural justice by issuing the proposed directions first, then after receipt of the replies, to extend personal hearing to them and then to issue final directions including directions of closure disconnection to the unauthorized units.
- b) Accordingly, proposed directions/show cause notices issued to the 200 unauthorized units. The 41 units which have not replied to the proposed directions, directed to close down their units with further directions of disconnection of electricity in case of failure. 66 notices unserved and therefore, it was decided to close down it till necessary documentary evidence about the compliance of notices produced.
- c) The Respondent-Board also issued directions to the Executive Vice Chairman of M/s. Reliance Energy Ltd., Mumbai -55, directing him to disconnect electricity supply to all such units, which are operating without consent of the Board

in Khairane Road, Sakinaka, Mumbai, by giving them 15 days notice for producing consent documents of the Board and by following the principles of natural justice. M/s.Reliance Energy Ltd. communicated to the Board that the Board shall identify the industrial units located at Khairane Road, Sakinaka, Mumbai, which fall in the catchment area of Mithi river, a non-conforming zone and operating without mandatory consent / authorization from the Board.

d) Therefore, the Board has decided to conduct the survey of 855 consumers of M/s.Reliance Energy Ltd. and to identify unlicensed units and accordingly, identified 530 units operating without consent.

e) The Board has also issued directions to the MCGM to disconnect water supply to the unauthorized industrial units in the catchment of Mithi river, which are operating without consent of the Board on the Khairane Road, Sakinaka, Mumbai by giving 15 days time.

f) Besides that, the Board had issued show cause notices to 157 industrial estates about the compliance of the provisions of the Water (P CP) Act, 1974, Air (P CP) Act, 1981 and Hazardous Wastes (M H) Rules, 1989 as amended from time to time. Out of that, only 25 industrial estates have submitted their replies to the Board and remaining 132 industrial estates given final directions to submit the names of the defaulting units in their industrial estates within 30 days time.

g) The Board has also engaged the services of M/s.Klean Environment Consultants Pvt.Ltd. for total survey and identification of the industries located in the catchments of Mithi river. The Draft Report submitted by M/s.Klean Environment Consultants Pvt.Ltd. identified 5700 units operating in Mithi river basin including the units identified by the MPCB MCGM. The finalized report of the said agency being submitted to the Mithi River Development Protection Authority for further necessary action. Since, the identified activities by M/s.Kale Environment Consultants Pvt. Ltd. is very large and the work is voluminous, it was submitted by the Board that one full-fledged technical personal for Mithi river alongwith supporting technical staff will have to be engaged.

h) The Board has also pointed out the necessity to make provision for common effluent treatment plant for all regular units being operated in the said area and situated in the industrial estates. However, the decision can be taken after finalization of the report by the Mithi River Development

Protection Authority about providing CETP.

i) The Board has also pointed out that the Board has started receiving a number of representations / replies / objections with request to grant further time to comply with the directions as well as for shifting of their activities within 30 mtrs. on the banks of Mithi river and beyond 30 mtrs., the activities requested for granting them necessary permission / consent, since, Mithi River Development Protection Authority taken conscious decision to demolish the activities within 30 mtrs. from the banks of Mithi river. The Board has decided to refer the said proposal to the Mithi River Development Protection Authority for further necessary orders.

Thereafter, the Board has filed 5<sup>th</sup> Affidavit in compliance of the order passed by the Hon'ble High Court on 1/3/2006 after scrutiny of the 5700 identified units by M/s.Klean Environment Consultants Pvt.Ltd. The observations of the Board reported as under

a) The report has included not only industries, operations or processes generating effluents but also included private markets, motor garages, the residential complexes, convention centers, commercial complexes, hotels/eating houses, hospitals dispensaries as well as offices also.

b) The report also included industrial estates and other activities therein, such as, canteens tea stalls etc. in the said industrial estates.

c) The report covered not only the operations on the banks of river but also the operations, processes other activities in the catchment area of Mithi river, which covers from the origin of Vihar lake upto Mahim creek. It includes the activities identified at a distance less than 50 mtrs, 50 mtrs to 100 mtrs, 100 mtrs. to 200 mtrs, 200 mtrs. to 500 mtrs. and more than 500 mtrs.

d) It was specifically pointed out in the Affidavit filed by the Board that Mithi River Development Protection Authority has decided to remove the encroachment on the banks of Mithi river upto 30 mtrs. only and therefore, beyond 30 mtrs. from the banks of Mithi river, the activities will have to be regulated by grant of consent / authorization under the provisions of the Water (P CP) Act, 1974, the Air (P CP) Act, 1981 and the Hazardous Wastes (M H) Rules, 1989 as amended form time to time.

e) Therefore, the Board has issued one public notice in the daily newspapers such as 'DNA', 'Maharashtra Times' in the month of March, 2006 directing all the industrial activities within the catchment area of Mithi river, which generates

**Against M/s. Somaiya Organic Chemicals**

liquid effluent, hazardous waste and gaseous emissions to file with the Board, the documents giving details about their activities including treatment disposal of their wastes, grant / refusal of consent/authorization from the Board within a week's time from the date of publication of the notice, failing which, their activities will be treated as unauthorized illegal and the Board will issue appropriate final directions.

It is also suggested that the encroachment upto 30 mtrs. on the banks of Mithi river will have to be first of all concentrated for taking action for shifting and then beyond 30 mtrs. for securing environment compliance.

The Board has thus filed five Affidavits giving the details about actions initiated by it and finally has reported that since, Mithi River Development Protection Authority has decided to remove encroachment upto 30 mtrs. from the banks of the Mithi river and MCGM is taking action for removal of such encroachment, it will be more appropriate to intensify actions upto 30 mtrs only for removal of encroachment and beyond 30 mtrs. to secure environment compliance. The Board has therefore given stay orders to the directions of disconnection of electricity / water supply beyond 30 mtrs. vide letter dt.12/4/2006 addressed to the Asstt.Commissioners, MCGM, Kurla Bandra, Mumbai and Dy.General Manager, M/s.Reliace Energy Ltd., Electric House, Santacruz (E), Mumbai-400 055. Since, the unprecedented heavy rains of 26<sup>th</sup> July, 2005, have created havoc in the catchment area of Mithi river, the issues raised in the above Public Interest Litigation are very much important and therefore, Hon'ble High Court is monitoring the implementation of action points decided by the various authorities including MPCB.

Shri R.V. Govilkar, Sr.Counsel is being assisted by Shri D. T. Devale, Sr.Law Officer and Shri S.K. Purkar, Law Officer as well as Shri P.P.Nandusekar, Principal Scientific Officer, Shri B.D. Kude, Regional Officer-Mumbai, Shri G.N. Mohite Shri B.D. Wadde, Sub-Regional Officers and other teams constituted by the Board to complete the survey and to take action in compliance of the various orders passed by the Hon'ble High Court.

**ATER POLL TION BY**

**M/s SOMAIYA ORGANIC CHEMICALS**

**Order passed in PIL rit Petition  
No.665 2004**

**Ramesh Namdeo Gorde**

s

The petitioners, who are resident of different villages namely Wari, Shingave Sade, Tal Kopargaon, Dist Ahmednagar have filed Public Interest Litigation bearing Writ Petition No.665 /2004 contending that an inaction on the part of the Respondents Nos.3 to 5 (MPCB, RO-Aurangabad, MPCB SRO-Aurangabad, MPCB) in not closing down the Respondent No.6 (M/s.Somaiya Organic Chemicals Ltd., Sakharwadi (Wari), Tal Kopargaon, Dist Ahmednagar), which has been causing serious water pollution and has resulted into danger to the life of the citizens as well as crops is illegal, arbitrary violative of the Articles 14, 1 (1)(g) 21 of the Constitution of India. The petition is mainly filed on the following grounds

a) Most of the petitioners are small land holders and they grow different crops such as

Maize, Jawar, Bajra, Onion etc and they have been cultivating their lands and income from the said agriculture lands is the main source of their livelihoods. The lands are being cultivated by the petitioners either through well irrigation or water available from the river Godavari and/or otherwise.

b) The Respondent No.6 i.e. M/s.Somaiya Organic Chemicals ltd. has been established since long, however, slowly slowly had started manufacturing activities in the different fields including manufacturing of organic substances like acids, croton etc. It is also stated that the very process of manufacturing of the alcohol by the Respondent No. 6 has been causing serious pollution due to discharge of highly polluted effluent in the thickly populated area and thereby causing water, soil as well as air pollution. The Respondent No.6 is manufacturing Alcohol, Acetic Acid, Acetaldehyde, Sorbic Acid, New Croton Aldehyde and Ethanol.

c) The petitioners state that these chemicals are hazardous dangerous to the life of the citizens. The petitioners also stated in the petition that the villagers alongwith petitioners made application to the Sarpanch of the Respondent No.7 Village Panchayat on 30/8/2003 about pollution being caused by the Respondent-Industry, which has given rise to the problem of health hygiene of all the citizens and therefore, the Village-Panchayat should not give no objection for manufacturing of Croton Aldehyde, newly started product.

d) The Village-Panchayat had not given any No Objection Certificate to the Crotonic Acid plant.

e) The petitioners also informed the Manager of the Respondent No.6 industry that since 1980, the colour of the water has been changed to yellow and it is causing serious damage to the crops. There is a grave problem of drinking water. Therefore immediate action should be taken for prevention of the pollution of the water. But the Respondent No.6-Industry has not taken any action for pollution prevention.

f) The petitioners also made an application to the soil survey and Soil Analysis Deptt., Ahmednagar for necessary reports of the soil as well as water and paid necessary fees. The said Deptt. has tested the water and soil and given report, stating that the water available in the well is not fit for the crops.

g) Since, the Respondent-Industry had not complied, the petitioner had to approach the Respondent No.3 to 5 i.e. the Maharashtra Pollution Control Board, its Regional Officer Sub-Regional Officer respectively. The petitioner pointed out that since long the polluted effluent is being discharged from the Respondent-Factory, causing pollution of water due to percolation, the well water is also polluted, the molasses is stored on the open ground and due to percolation causing serious damage to the well water and resulted into serious problem of drinking water as well as irrigation water, thereby causing damage to the crops.

h) It is also stated that the Respondent No.5 had not taken any action and therefore, the petitioner had no alternate remedy but to approach the Respondent No.8 i.e. the Dist. Collector on 5/5/2004 and also given applications to the Tahasildar and the Block Development Officer in respect of damage to the crops and danger to the life of agriculturist, because the main source of livelihood of the petitioners is the said crops and except agriculture occupation, they have no other source of income. Since, no actions are initiated by any Respondents the petitioner has to file the present petition.

The inaction on the part of the Respondents is illegal, arbitrary violative of the Articles 14, 1 (1) (g) 21 of the Constitution of India. The Respondent No.6 is manufacturing poisonous substances, which are dangerous to the life of the citizens. The petitioner therefore filed petition to call for record proceedings of the case, for issue of writ of mandamus or any other appropriate writ or directions in the nature of said writs, directing the Respondents to take immediate steps to close down the manufacturing activities and pending disposal of the petition, grant an injunction,

restraining the Respondent No.6 from manufacturing the dangerous chemicals includes Croton Aldehyde etc. and discharging effluent.

Shri B.J. Nakate, the Sub-Regional Officer of the Board at Ahmednagar filed parawise reply to the petition on 26/10/2004, opposing the admission of the petition or interim relief sought by the petitioner, stating that

a. The Respondent No.6 has started manufacturing of industrial alcohol since 1957. The Union of India through Environment Deptt., Govt. Maharashtra granted license to the Respondent No.6 and recently, Respondent No.6 applied for consent to manufacture Croton Aldehyde in 2003. No Objection Certificate from Village Panchayat Wari to set up new Croton Aldehyde Plant produced by the Respondent No.6.

b. The survey of soil by the Soil Survey Soil Analysis Deptt., Ahmednagar not connected with the Respondent Nos.3 to 5 but comes under State Agriculture Ministry and therefore, no comments about the same.

c. The Sub-Regional Officer visited the industry on 20/4/2004 and given instructions to the Respondent No.6 to take appropriate corrective measures. Thereafter, again visited on 1/8/2004 and since, no steps taken by the Respondent No.6, it was directed to take immediate steps.

Thereafter, the Regional Officer, MPCB, Nashik reported non-compliance to the Respondent-Board for issuing appropriate directions and based on the said report, the Member Secretary of the Board issued directions u/s 33A of the Water (P & CP) Act, 1974 and u/s 31A of the Air (P & CP) Act, 1981 to closed down the manufacturing activities forthwith on 18/10/2004. Thus, the Respondent Nos. 3 to 5 had taken appropriate actions against the Respondent No.6-Industry. Hence, it was prayed to dispose off the petition on the face of record.

Thereafter, Shri B.J. Nakate, Sub-Regional Officer, MPCB, Ahmednagar filed an additional affidavit bringing on record the directions issued by the Respondent No.3 after extending personal hearing to the petitioner the Respondent No.6 on 8/11/2004. The directions issued on 1/11/2004, directing not to restart the distillery plant till Reverse Osmosis Plant is completed in all respect and commission, to scrap all Solar Evaporation Pits by reclamation of the said area within 12 months time and to deposit 10% of the total cost of the proposed water supply scheme prepared by the Maharashtra Jeevan Pradhikaran for the said village on the basis of 'Polluter pay principle' laid down by

the Hon'ble Supreme Court of India in Vellor Citizens Welfare Forum V/s Union of India Ors.(1-6) as well as supply of drinking water to 4 villages and to co-operate with the committee appointed by the Board to monitor compliance of directions.

Thereafter, the petitioner had filed Civil Application stating that the Pollution Control Board, which had been inactive for long time, suddenly indicated that it had passed order of closure on 18/10/2004. Thereafter, the Hon'ble High Court heard the petition on 28/10/004 and directed that the petitioner should be heard and then the Pollution Control Board should pass the order. There was a serious mishap in the Respondent No.6-Industry on 28/10/2004, by leakage of poisonous gas and affecting a number of peoples. The petitioners were heard on 8/11/2004 and thereafter received a copy of the order not to restart the Respondent Industry issued by the Respondent Board on 1 /11/2004. It is contended that except issuing the notices since 1/6/15, B3/5/1 1/4/2000, no actions are initiated by the Respondent-Board. The Board is acting hand in gloves with the Respondent No.6 instead of discharging its function. Therefore, the petitioner proposed amendment in the prayer clause for declaring the order dated 1 /11/2004 passed by the Board as illegal, arbitrary violative of the Articles 14, 1 21 of the Constitution of India.

Shri P.K. Mirashe, Regional Officer of the Board at Nashik had filed an Additional Affidavit in March, 2005 on behalf of the Respondent Nos.3,4 5 respectively, giving details about the directions issued by the Respondent No.3 after extending personal hearing on 8/11/2004, as under

a. Since, the petitioner could not reach at the time of personal hearing extended on 2 /10/2004, the Board had extended personal hearing on 8/11/2004 to the Respondent No.6 industry and the petitioner. The Board had issued directions dt.1 /11/2004, which include not to restart the distillery till the River Osmosis Plant is completed commissioned, to scrap old lagoons within 12 months time but allowed to convert one Solar Evaporation Pit in an anaerobic lagoon for temporary storage, depositing of 10% cost of water supply scheme for the villages and supply of drinking water to those four villages.

b. Regional Officer carried out joint inspection with the representative of the Respondent-Industry and Sub-Regional Officer and found that Croton Aldehyde was not in operation and other chemical plants like Acetaldehyde, Acetic Acid were not in operation. The DT-RO-Plant for water recycle from

spent wash has been completed in all respect by 28/12/2004 and the trials for these plants were carried out on 30/12/2004. The effluent stored in the lagoons was found to be feeded as input to the RO-Plant. The work of removing of Solar Evaporation pits near Godavari River was in progress. About 20% of the total 54 hectares of land under Solar Evaporation pits has been de-sludged and leveling was under progress. The industry started supplying drinking water to the villagers.

Thereafter, after hearing all the respondents, Hon'ble High Court admitted the petition by issuing the rule and observed that the Regional Officer, MPCB, Nashik had filed an Affidavit in compliance of order dt.28/4/2005 stating that the Respondent-Industry is completely closed its operation with regard to 6 plants commissioned therein. In the meantime, the Respondent No.6 stated that it does not have any other plant other than 6 plants mentioned therein at that place. However, the facts disclosed in the petition depict a very sorry state of affairs and therefore, the Director, NEERI, Nagpur to depute one of its senior Environmental Scientist to visit inspect from all the angles the polluting aspects and to report what precautionary measures have to be taken by the Respondent No.6 industry to avoid pollution. The Respondent No.6 to deposit a sum of Rs.1 Lakh on or before <sup>th</sup> May, 2005 towards the cost of inspection etc. The liberty is granted to move the Vacation Judge after receipt of report from NEERI's Scientist.

Thereafter, Hon'ble High Court (Coram S.P. Brahma A.P. Deshpande, JJ) passed order dt.20/6/2005 and observed that it is not in dispute that in compliance of the statement made by the Learned Counsel, the manufacturing activities in all 6 plants has been stopped. Thereafter, NEERI was deputed to visit inspect the polluting aspects from all the angles. The report reveals that the distillery is the main source of pollution and the same constitute 0% of the pollution, whereas, the other 5 units at Sr.Nos. 2 to 6 constitute, together 10 % of the pollution. In view of this, it is proposed not to permit the

Respondent No.6 to carry on its production activity at Unit No.1 for the present. After adequate provisions are made to control pollution, it shall be opened for the Respondent No.6 to move an appropriate application in this regard for unit No.1. Though, prima-facie the Respondent No.6 could be permitted to commission manufacturing activities in the 5 units at Sr.No.2 to 6, it is not safe to pass an

order in that regard and therefore, MPCB to take appropriate decision in the matter. However, petitioners are permitted to make submissions before the Board. The Board has to expeditiously reach a decision in this regard. Then NEERI submitted its report dt.6/5/2005 before the Hon'ble Court. On the basis of NEERI report, the petitioner filed one Affidavit on 12/6/2005 stating that the report of NEEERI clearly indicated how the Respondent No.6 industry has been running the said unit without taking any precaution for pollution prevention and causing pollution. The Respondent No.6 to take appropriate steps as directed in paragraph 5 at page 30 onwards in the report. It is necessary to immediately reduce the production of alcohol as mentioned in paragraph No.5 of the report. The Respondent No.6 thereafter filed preliminary written submissions stating that the distillery plant has been closed since 8<sup>th</sup> August, 2004 and not operated since then. As per report, the treatment disposal arrangement provided by the Respondent No.6 industry for effluents generated from 5 other plants appears to be adequate. There are more than 550 families, which are dependent on the operation of the factory, which contributes a sum of Rs.3.50 Lakhs per day to the National Exchequer (Excise Duty, Sales Tax, Turn Over tax etc.). Therefore, requested to permit its operation.

Shri P.K. Mirashe, Regional Officer, MPCB, Nashik had filed an Additional Affidavit in October, 2005 on the basis of the visit inspection carried out by him on 8<sup>th</sup> August, 2005 to verify overall compliance. He stated that the ambient air quality monitoring source monitoring at Boiler Stack, Acetaldehyde Plant Vent Acetic Acid Plant Vent was carried out at various places to know overall impact on ambient air quality. The five plants were in operation and DTRO plant was also found to be in operation though distillery section was found to be closed. About 50% of the Solar Evaporation pits were removed and one of the Solar Evaporation pits has been converted into pucca impervious storage tank for holding treated effluent. The results of samples collected from various wells including complainant found to be exceeding in spite of closure of distillery.

The petitioner thereafter filed Civil Application No.11102/2005 and made wild allegations against all the Respondents including Maharashtra Pollution Control Board stating that NEERI has submitted totally devastating report from which, it can be concluded that for more than 10 years period, the Board has been issuing notices but their officers not doing anything. Though the distillery is closed, the

Reverse Osmosis Plant is not as per the requirement but has been set up just to show the requirement. The discharge capacity of RO Plant is 40 M3, whereas, the requirement is 1000 M3. Considering the inadequacy of the present installed capacity of RO, it is recommended that SOC should reduce its present capacity of alcohol production from 1800 MT/month to 100 MT/month. Similarly to reduce generation of spent wash from 100 M3/day to 400 M3/day till RO is completed for 100 M3/day. The permission for distillery should not be granted unless it comply with all the requirements.

Thereafter, Shri P.K. Mirashe, Regional Officer, MPCB, Nashik had filed a detailed Affidavit in November, 2005 denying all allegations against the Board and stated that the allegations made by the petitioner are personalized made with a view to prejudice the opinion about the Board. The Respondent Nos.3 to 5 strongly refutes the allegations. Since, the Respondent No.6 industry has already provided full-fledged primary secondary treatment facilities as per G.R. dt.2/4/1996 and also provided zero discharge of waste system as per CREP and therefore, the request of the Respondent-Industry to restart can be considered subject to the conditions as may be necessary.

Thereafter, Hon'ble Court allowed the Respondent No.6 industry to continue its operation by its order dtd.24/11/2005 and observed that Mr.Devale, the Learned Counsel appearing on behalf of the Board referred to various Affidavits filed by the Board, giving details of various remedial measures, which have been adopted by the Respondent No.6 industry and the Board is satisfied that in future there would be no pollution. Thus, the Board has given its approval for starting of Unit No.1. Of-course, the efficacy and the effectiveness of the various remedial measures can only be assessed and judged after the unit starts functioning. Accordingly to Respondent No.6, it has taken all the steps to see that the distillery other units do not pollute the area, giving the details of all installations. Hon'ble Court observed that NEERI's Scientist also suggest that they could not assess the effectiveness of pollution control measures as the unit was closed on account of Court's order. The petitioner's Advocate Mr.Dhorde, stated that the Respondent No.6 has been guilty of causing massive pollution. A number of agriculturists have been affected on account of rendering their land unfit for cultivation. He also stated that in order to test efficacy and effectiveness of the remedial measures, the distillery should comply with the conditions mentioned in NEERI report. He again insisted to depute NEERI's Scientist to submit their preliminary

report. Hon'ble Court (Coram- P.V. Hardas and J. H. Bhatia, JJ) allowed the Respondent No.6 to continue their production activity of distillery subject to the conditions imposed by the NEERI. The matter is listed for further orders after 3 weeks. The above matter is a unique example of wild allegations made by the petitioners in the Public Interest Litigations against not only the Pollution Control Board but also all the Respondents in spite of sufficient steps are taken by the Respondent-Industry to comply with all the norms. The reason can be old storages of lagoons in respect of spent wash, which have caused pollution in the surrounding areas, which was the prevailing practice at the inception in almost all the distilleries, not having acquainted with the most modern technology. It is after passing of the Environment (Protection) Act, 1986 stringent uniform standards laid down for distilleries and now as per CREP

(Corporate Responsibility for Environment Protection) Guidelines, zero discharge has to be achieved. Both the norms are fulfilled by the Respondent Industry. The Law Officer of the Board specifically pointed out judgment order passed by the Hon'ble High Court dt.24/10/2001 (Shri B.P.Singh, CJ & Dr.D.Y. Chandrachud, J) in the writ petition No.44/2001 filed by Janardan Pharande Ors V.s MPCB Ors., wherein, it was observed that it is not possible for the Board nor there is any technology to provide an overnight solution to their reclamation problem of lagoons, which is accumulated for years together. Shri D.T. Devale, Sr.Law Officer of the Board appeared in the matter and Shri P.K. Mirashe & Shri B.J. Nakate as well as Dr.Mundhe, Sub-Regional Officer assisted him under the auspicious guidance of Dr.D.B. Boralkar, Member Secretary of the Board.

## ANNEXURE 3-4

### Public Hearing

#### Procedure of conducting Public Hearing

MoEF, GoI, has issued amendments to the EIA notification dated 27/01/14 as amended on 4-5-14. The Notification No.318 (E) introduces the procedure for conducting Public hearings for projects requiring environmental clearance from the GoI. The notification No. 31 (E) delegates powers of granting an environmental clearance to certain categories of power plants to the State Government.

As no administrative, financial and procedural outline has been given in the said Notifications for conducting the Public Hearing, the Board has therefore, laid down the following procedure for conducting the Public Hearings as decided in the 118th meeting of the Board held on 20-11-17.

1. Convener/RO/SRO should accept only completed applications for Public Hearings on Consent to Establish, with relevant documents such as reports on EIA, EMP, Executive summary (English and Marathi 20 sets of each) and C.D. thereof. In case of building construction projects additional information in questionnaires should also be enclosed.
2. Obtain the nominations of senior citizens from District Collector covering various facilities as a panel of senior citizens with a validity of 3 years. Also obtain willingness of each senior citizen in writing. A panel of about 20 such nominations shall be prepared and got approved from the Collector, so that the Board may invite three senior citizens out of this list.
3. Regional Officer/Sub-Regional Officer should prepare a comprehensive panel for Public Hearings as prescribed in the rules consisting of all relevant Government Dept. Local bodies, Sr. citizens (as obtained from Collector) for their jurisdiction and get it approved from the Board. This will save the time in obtaining the names. In case of elections,

selection of public/elected representative the local bodies is not possible. In such case officers of the local body may be considered as panel members. Appointment order of the Public Hearing Panel will be issued by the Board.

4. Regional Officer/Sub-Regional Officer should decide the date, time and venue, and select the Public Hearing panel from the approved comprehensive panel as indicated in point 3 above.

5a. Convener should issue Public Hearing notice after receipt of order of Public Hearing panel and keep one set of application, EIA, Executive summary, EMP, etc. at various places as notified and also handover one set to panel members.

5b. Notice of Public Hearing and executive summary of the project should also be made available on the website of the Board.

5c. Notice of the Public Hearing of minimum size of 16 cm. x 8 cm. should be published in the 2 newspapers (English and Marathi) having large circulation in the project area. This information may be obtained from the District publicity office.

5d. The Member Secretary of MPCB or his representative will be the Chairman of the Public Hearing panel.

6. Minutes of Public Hearing should be prepared by the convener and got signed by Chairman of Public Hearing and submitted, in duplicate, to Board office, along with application for Consent to Establish. The minutes will be placed on the website after submission to MoEF.

7. Convener is permitted to incur the expenditure for Public Hearing proceedings from Public Hearing fees upto 50%. For additional expenditure, approval from Member Secretary shall be required.

Above procedure for Public Hearing will be applicable to forthcoming projects with immediate effect.

## ANNEXURE 3-5

### CETPS in Maharashtra

#### 1. CETP at Dombivali Phase I

To improve the creek water quality in the Kalyan area, the Board issued directions to CETP Textile, Dombivali, MIDC Ph I to upgrade and enhance the existing capacity of CETP from 14 MLD to 16 MLD. A task force committee was set up to do the needful. Accordingly, all 4 modules have replaced the 8 submerged aerators by surface aerators in the existing bioreactor. The aeration system has been augmented. About 264 air diffusers have been installed and commissioned. A civil contractor has been finalized and a letter of intent has been issued to construct two additional bioreactor and sludge drying pits. Tender documents for mechanical and electrical work have already been completed.

Accordingly the performance of the CETP and the quality of treated effluent has improved.

#### 2. CETP at Dombivali Phase II

The CETP at Dombivali Phase II has a capacity of 1.5 MLD and is operating satisfactorily. This CETP serves the largely chemical dominated industrial sector in this region. The area comprises of 4 MSIs and remaining SSIs. It is proposed that this CETP will be clubbed with the Phase I CETP.

#### 3. CETP Ambernath

- Chikholi Morivali CETP of 0.8 MLD is constructed and ready for commissioning involving 120 industrial units. It is a cluster of small scale chemical industries.

- CMA A small CETP of 0.25 MLD capacity is in operation. There are 33 industries and most of these are small scale industries who discharge to this CETP. The CETP is working satisfactorily.

#### 4. CETP Badlapur

This CETP has a capacity of 8 MLD with 235 units discharging to it. It is an industrial cluster of chemical and textile units. 42 textile units are operating in this area. The CETP is working satisfactorily.

#### 5. CETP at Butibori

The CETP at Butibori was commissioned recently. It is currently under stabilization (see Figure 3.7). In phase-I, 5 MLD effluent will be treated. MIDC Hingna will utilize the facility to treat the effluent of its members to the tune of 1 MLD. This will solve the problem of effluent discharge from polluting units into the nalla, which meets Wena River.

#### 6. CETP Tarapur



In view of the rapid growth of the small-scale chemical units at the MIDC area of Tarapur, the proposal of CETP was worked out by Tarapur Environment Protection Society. This CETP with a capacity to treat 2 MLD of industrial effluent was constructed and commissioned in the year 1984.

About 238 industries are members of this CETP. Primary treatment of effluent is done in factory premises it is collected and transported by tankers for further treatment to CETP. The CETP comprises of primary and secondary treatment facilities. Treated effluent is disposed into the sea through closed pipelines. However, the need for a larger capacity facility was felt. Hence, a proposal was put forward for a new CETP at Tarapur. The work of a new CETP with a capacity of 25 MLD is in progress. Primary treatment facilities have been completed and commissioned from 10<sup>th</sup> January, 2006. The work of clarifiers in the secondary treatment plant is completed and work of the aeration tank is in progress. Secondary and tertiary treatment units have been received at the site.

##### . CETP at MIDC Patalganga

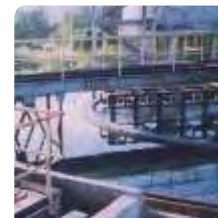
15 MLD of industrial effluent can be treated in this CETP. The project cost is around Rs. 7 Crores.

##### . CETP at MIDC Roha

With a 10 MLD capacity, this CETP comprises of collection with free aeration, equalization, pH correction, PAC dosing, flash mixer, clariflocculator, aeration tanks, secondary clarifier, ozonation. Cost of the CETP is about Rs. 12 Crores. Actual effluent generation at present is about 8 to 10 MLD. 52 industries have become members of this CETP. The CETP is complying with all parameters generally except COD and to some extent BOD. Inlet quality of effluent in CETP is within designed criteria.

##### . CETP at MIDC Mahad

The Mahad MIDC has developed industrial areas adjacent to River Savitri and River Kalu in the year 1980. They have provided effluent collection and disposal facilities upto the saline zone of River Savitri at Ambet.



## 10. CETP at TTC MIDC Pawane

CETP at TTC was established in November 1977 and was designed for 12 MLD capacity of effluent. This CETP was upgraded to enhance the total capacity upto 27 MLD. There are 425 small-scale user members, 55 medium / large-scale user members and 105 non-user associate members to the CETP. Treated and partially treated effluent is collected through closed underground pipeline network and brought to CETP. After secondary treatment, effluent is discharged through a closed pipeline of length 3.5 km. by means of gravity into the Thane Creek through submerged outfall. The sludge generation from the CETP is about 5 MT/Day and is disposed at CHWDF at TTC.

## 11. CETP at Talo a MIDC



CETP at Taloja is designed for 10 MLD capacity of effluent and is collected by means of a network of closed pipelines. The effluent quantity reaching the CETP is within the installed capacity in the dry season but in rainy

season it is higher resulting in some quantity of untreated effluent being discharged, but due to the dilution factor of rain water the impact is not significant. CETP is in the process of increasing its handling capacity. Upgradation cost of the existing aeration tank by installing Diffused Aeration System was Rs.1.25 crores. This was done in May 2005, which has resulted in maintaining the quality of treated effluent well within prescribed standards. HW generated from this unit is regularly sent to CHWDF at Taloja for scientific disposal. Treated effluent from CETP is disposed into the creek through gravity by a closed 7 km. pipeline. The blockage / breaking of treated and untreated effluent carrying pipelines is a cause of effluent entering into the adjacent rivers. Vigilance is maintained by MPCB, and any such incidence is brought to the notice of CETP officials and CETP staff is directed by MPCB to carry out repairs at the earliest.

## 12. Kurkumbh CETP

This CETP has a 1 MLD capacity. Kurkumbh MIDC area is declared as a chemical zone. 3 units are currently in operation in the area. CETP is not meeting the standards due to inadequate capacity. MPCB directed MIDC and concerned industries to upgrade CETP. Accordingly, Kurkumbh

Environmental Protection Co-operative Society Ltd., is formed for further actions.

## 13. CETP at Solapur

This CETP, commissioned in 2003 is located in the Chincoli MIDC area of Solapur. Its design capacity is 1.5 MLD. 15 industries are members of this CETP. The treated effluent disposal system at this CETP is not yet ready.

## 14. CETP at Lote Ratnagiri

This CETP commissioned in 2003 serves the MIDC Lote area in Ratnagiri. It is currently in operation with a design capacity of 4.5 MLD. The treated effluent is collected through closed pipelines and disposed in Karambavane Creek, about 7 km. from the CETP.



*The concept of CETPs was evolved to provide necessary assistance to this sector, wherein the wastes generated by a number of industries are brought together to a central place and treated. This scheme is implemented for the clusters of industries in Maharashtra Industrial Development Corporation areas as a part of the common environmental infrastructure for environment protection.*

## ANNEXURE 3-

### Environmental Improvement Plans

#### ALANDI

##### Existing Environmental Scenario

###### I. Sewerage and Sanitation

The existing sewerage system in the town is inadequate and the sewage disposal is based on a septic tank system. A sullage scheme was developed and executed in the year 1985 consisting of collecting sewer, sump well, dry well and sump house, pumping machinery, etc. The collecting sewer was laid along the left bank of the river and it received sewage sullage from the Bhagirath Nala and other parts of the town. However, the intercepting sewer is broken near the new bridge and the scheme is not functional now. The scheme had been planned to utilise the sullage water for agricultural purposes after primary treatment. A new intercepting sewer has been laid from behind the Samadhi Mandir near Dyaneshwar Ghat. The sewage and wastewater is let off in the Indrayani River near the old bridge.

The present resident population and floating population of Alandi generate about 2.5 MLD of sewage and 1.7 MLD of sullage. This is either disposed on ground or most of it finds its way to the Indrayani River. This has led to pollution of the river and poses health risks to the residents of Alandi as well as downstream villages. The unhygienic condition of the river can cause epidemics during fairs and festivals when lakhs of pilgrims visit the town.

###### II. MS Management

Alandi Municipality carries out the collection and disposal of the solid waste. Total MSW generation at Alandi is 5 MTPD. During the Ashadhi and Kartiki fairs, about 5 lakh pilgrims stay in Alandi for 2 days. The waste generated during the fair season is estimated to be 30 tons during the two days. The collection of the waste is done twice a day and it is disposed at a designated dumping yard at Vishrant Vad on Vadgaon Road located at one kms from the town boundary. The site has an approximate area of 1500 sq. m. Alandi Municipal Council (AMC) does not have any primary collection system. The individual households dispose their waste into dustbins along the streets by their own means. The waste collected from the town is then transported to the dumping ground with a mini lorry (Tata 407) and a tractor having a capacity of 4 ton and 1 ton

respectively. Each vehicle makes two trips daily. However, considering the bulk density of the solid waste as 0.35, the actual collection of the waste is only 3.5 tons per day.

The present management shows inadequate equipment and manpower for collection of daily solid waste. The existing solid waste dumping technique is unscientific. The waste is seen lying along the riverbanks and on the roadsides, which is not only degrading aesthetically, but also is hazardous for public health. House to house collection of garbage is not done in Alandi. There is need to create awareness among the people for better solid waste management.

###### III. Traffic and Transportation

Alandi is connected to the District Head quarter Pune and nearby main urban centres through the Pune-Nashik NH-50 and a Major District Road (MDR). It is also connected to the Moshi village on the NH-50 by a road leading to Dehu, another religious town. Chakan, a village also situated on the NH-50, is connected to Alandi by a MDR passing through the town. Internally, the entire Alandi town is connected by various small roads and lanes. The internal roads are mostly 7 m wide. However, the effective width is significantly reduced due to roadside parking and shops. Also, the roads are irregular and have awkward shape. Roads in the Gaothan area are very narrow in width and are awkward in shape. Poor road surfaces quality, kuchha roads, resulting in wear and tear of vehicle tyres, slow traffic movement and dust pollution. Road encroachments effectively reducing the road width causing traffic jams and vehicular noise and air pollution. No planned parking areas in the town. Haphazard parking causes a reduction in effective road width and creating traffic hazards. Kuchha parking area results in dust pollution.

#### SHIRDI

##### Existing Environmental Scenario

###### I. Sewerage and Sanitation

Presently the sewerage scheme in Shirdi is in a limited area. The total length of the sewers is about 10 km. Sewage in some places is discharged to open gutters. The Sewage collected from the network also leads to the Laxmi Nagar Nala. Existing network covers less than 16% of the area of the town.

Sansthan has its own under drainage scheme for all its buildings and roads. The Sewage generated from the bhakata nivas, sulabh shouchalaya, sullage from septic tank are sent to through internal sewerage network.

Shirdi does not have any sewerage system or underground drainage facility. Due to absence of sewerage system there is a high risk of pollution of groundwater. The storm water drains are clogged and present a very unhygienic picture of the town.

## **II. MS Management**

The Sansthan and the Municipal Council are both involved in the collection and management of the solid waste. Since Shirdi is a major tourist center the waste generated in the town would contain large quantities of organic waste. From the field survey it was observed that the solid waste from the town largely contains organic waste from religious offering and functions, flowers, food items, households and markets, commercial waste like paper, plastic, bags, etc. and inert material like sand, stones and silt from street sweeping and drain cleaning activities. An important source of plastic in the waste is from the offerings given in plastic bags and tea served by the Sai Sansthan Canteen in plastic cups. A conservative estimate from the officials shows that average 20 000 teacups are sold daily. These cups when disposed find their way into the solid waste.

As per the preliminary estimates and discussions with the officials, the solid waste generated in the town is about 7.5 MTPD, including that generated by the temple area. Out of this, only 4 ton of the waste is collected and transported. Thus, substantial quantity of the waste remains unattended. At present the municipal council dumps solid waste at a site on the Pimpalwadi Road near Rui Shivar. The site has an approximate area of 1.03 hectares. The Shirdi Municipal Corporation (SMC) has contracted a private agency M/s Clean Eco and Environment Developers Pvt. Ltd for converting the bio degradable waste to manure.

The company pays an annual royalty of Rs. 45,000 to the SMC for using the waste. No scientific disposal methods are being practiced at the site and the waste is just dumped in the open land. The site is also devoid of basic infrastructure facilities such as weigh-bridge, compound wall, etc. and watchman for monitoring vehicle arrivals. The Sai Sansthan dumps all the non-biodegradable waste on the SMC landfill site. The organic waste generated by the Sansthan is carried to the vermi compost plant at the New Bhakta Niwas.

The collection of solid waste needs to be improved considering that there is a substantial floating population visiting the town. The manpower allocated for collection, number of dustbins and other equipments are inadequate. House to house, collection of garbage is inadequate in Shirdi. There is need to create awareness among the people for better SWM.

## **III. Traffic and Transportation**

Shirdi is connected to the District Head quarter Ahmednagar and nearby main urban centres through the Ahmednagar Manamad SH - 10. It is also connected to the villages of Pimpalwadi, Nandurkhi and Kankuri by Bitumen Topped (BT) roads. Internally, the entire Shirdi town is connected by roads and lanes. The internal roads in the gaothan are mostly 7 m wide, but the important amongst them such as the Palkhi Marg are being widened to 10 m. Within the municipal limits, the width of the roads range between 3-30 m (10 to 60 ft). However, roads within the Gaothan area of the town are narrow by lanes and have a width ranging from 3 to 8 m (10 to 25 ft). The road surface is either concrete or bituminous in nature.

Traffic management in Shirdi is mainly governed by the flow and movement of pilgrims in the town. The SMC and the Sai Sansthan have taken up the improvement of important road and the work is under progress. This has considerably solved the immediate problems of traffic management in the town. The congestion on Ahmednagar-Manmad road due to through traffic, although the road has been widened to 30m wide 4 lane divided carriageway is a smaller issue. Most other important roads branch out from this road hence there are minor traffic problems at these junctions. The junctions are not evenly spaced due to which the situation becomes complicated with respect to traffic management.

## **SHANI SHINGNAP R**

### **Existing Environmental Scenario**

#### **I. Sewerage and Sanitation**

There is no existing sewerage system in the village and the sewage is disposed through septic tanks. Most of the wastewater is let into the Panas Nala near the temple. Underground drainages are provided within the Bhakta Nivas and Sulabh Shouchalaya buildings and other office building coming under temple administration. The total network of drainage work is approximately 360 metres. The capacity of the septic tank is about

10 lakh litres for each bhakata nivas. The supernatant overflows from the septic tanks are connected to the Panas nala. The sludge will be removed once in a year from the tanks and utilized for agricultural purposes as manure. The temple premises have got an underground drainage network for draining sullage and sewages. The sullage reaches the Panas nala and sewage to septic tanks. The network covered is only 0.2 sq. km out of Panchayat limit of 6.10 Sq. km, where the rest lands are mostly agricultural.

Shani Shingnapur does not have any underground sewerage system and sewage treatment facility. Individual septic tanks and dry latrines provide the disposal system for household night soil, while the domestic wastewater flows through the roadside drains into the nallahs and pollutes the watercourses. The Panas Nala in which the statue of Lord Shani was found is now being used for dumping sewage and solid waste. It is quite ironic that a place that should have been revered has met with such a fate. Recently 325m length of nala is covered by hum pipe. The number of public toilets considering the daily pilgrim flow of about 6,000 to 8,000 is inadequate.

## II. MS Management

The main sources of solid waste in the village are the temple complex, household waste, and waste from shops. There are no industrial units within the limits of the Shani Shingnapur Grampanchayat. The Mula sugar factory is about 2 km from Shani Shingnapur, the organic from the factory is composted within the factory and bagasse is used for the boiler. Being a rural area a significant component of the waste is the agricultural waste but most of it is reused in the fields. The waste from the temple mainly consists of flowers, rui leaves, cloth pieces, food waste from the dining hall, and coconut waste. Oil offered to the lord is also an important component of the waste. At present 1.5-ton waste is collected in a tractor trolley and transported to a disposal site 2 km from the gram panchayat towards Ahmednagar Aurangabad highway bypass. The area of disposal is 4.25 hectare. The waste is disposed by using the open dumping method. Some times waste is burnt in open air. The Grampanchayat does not have any staff for SWM. The temple trust has a total staff of 16 persons, of these 10 are on contract and 5 are permanent. There is one supervisor looking after this staff.

Presently, the solid waste is dumped on open land towards the Ahmednagar-Aurangabad highway

bypass. This site is located outside the Grampanchayat limits towards east. It is about 2 km from the temple. The site is owned by the temple trust. At present 1.5 acres are being used for dumping. The site is surrounded by agricultural land on three sides and the Ahmednagar - Aurangabad highway approach road on one side.

Equipment and manpower for collection of daily solid waste is inadequate. Presently Shani Shingnapur Gram Panchyat is not collecting waste from house to house. The existing solid waste-dumping technique is unscientific. The waste is seen lying along the Panas nala and on the roadsides, which is not, only degrading aesthetically, but also, is hazardous for public health. House to house, collection of garbage is not done in Shani Shingnapur. Though a substantial amount of organic waste is generated, there is no composting plant in Shani Shingnapur.

## III. Traffic and Transportation

Shani Shingnapur is connected to nearby main urban centres through the Ahmednagar-Aurangabad SH-60 and MDR. Being a small village, Shani Shingnapur shows a meandering pattern of road network. Most of the village roads are kutcha earthen roads with average width of 3 m. The village has grown organically over the years and hence many of its internal roads lack vehicle accessibility.

The Sonai and Ghodegaon road are the major traffic roads. The Shani Shingnapur- Sonai road connects to Nagar- Manmad Highway and Shani Shingnapur- Ghodegaon road connects to Ahmednagar- Aurangabad Highway. Mula sugar factory is 2 km away from Shani Shingnapur. During factory season (i.e. approx. from November to April) sugarcane loaded vehicles (like bullock carts, tractors and trucks etc.) pass through the main road. This is the same time when major festivals like Deepavali, Shani Amavasya fetch more pilgrims to the village. This causes hurdles in smooth traffic flow. The road network in Shani Shingnapur is about 8.0 Km, of which 6.2 Km are BT roads, 0.5 km roads are water bound macadam roads and another 2.2 Km are kutcha earthen roads. The internal roads in the villages are kutcha. The surface condition of Ganeshwadi and Kangoni roads was reported as very poor.

Roads in the Gaothan area are very narrow in width and are awkward in shape. Poor road surfaces quality and kutcha roads, results in wear and tear of vehicle tyres. The kutcha parking area is the major cause of dust pollution in the area.

## ANNEXURE 4-1

### Training for MPCB Staff

Workshop Training and Seminar Attended by Officers/Staff of the Board (2005-2006)

Sr. No	Training Programme	Organized By	No. of Participant	Dates Venues
<b>Category Air</b>				
1	Latest Air Pollution Control Technologies and its Performance Evaluation.	CPCB	02	Aug 29-Sep 2 , 2005 Dr. Ambedkar Institute of Productivity ,Chennai, Tel 26251808, 26254904, Fax 044-26254904, Email aipnpc vsnl.com
2	Selection, Design, Operation Maintenance of Air Pollution Control Equipment (A technical Update)	Engineering Staff College of India, Hyderabad	01	Nov 15-18, 2005 Engineering Staff College of India , Hyderabad,
3	Air Pollution Health Impact.	Indian Institute of Technology, Roorkee	03	23-24th ,2006 Indian Institute of Technology,
4	Ambient air quality monitoring	Envirotech Centre for Research Development	04	6-10 March, 2006 Envirotech Centre for Research Development
<b>Category Chemicals and Waste</b>				
5	Two days workshop on Chemical Waste Incineration		01	April, 28 to 29,2005 CPCB, at Delhi.
6	Identification of Hazards and Assessment and Control of Risk and Hazardous waste Management respectively	National Safety Council., Tel 27579924, Fax 91-22-27577351.	02	June 28- 30,2005 and 10 -12 August,2005 Hotel West End, Mumbai
7	Environmental Statement including Waste minimization, Environmental Auditing and management system for pesticide industries.	Central Pollution Control Board, CPCB, Tel 22305792 22303717, Email cpcb_alpha.nioc.in	02	Sep. 6-8, 2005 Jasmyan Hall, Vadodra
8	Hospital Clinical Waste, Hazard Management and Infection Control (Bio Medical Waste Management )	Indian Society of Health Administrators (ISHA), Dr. Sahani.	04	Sep. 19-22, 2005 Baba's Gyan Sarovar,Banglore,
9	Clean Technologies and Waste Minimization for prevention and Industrial Pollution.	CPCB	01	Punjab State for Council for Science Technology, Chandigarh., Tel 2795001/2792787 Fax 0172-2793143, Email info pscst.com
10	Municipal Solid Waste Management, Planning, Collection, Handling Disposal Options	Engineering Staff College of India Hyderabad	01	Dec 12-16, 2005 Engineering Staff College of India, Hyderabad
11	Management of Hazardous Chemical, Hazn, Hazop Risk Analysis	CPCB	03	Jan 19-20, 2006 Hotel Center point, Nagpur.
12	Hospital, Clinical Waste ,Hazards Infection Control	Indian Society of Health Administrators (ISHA), Bangalore.	03	20-23 Feb, 2006 Bangalore.

Sr. No	Training Programme	Organized By	No. of Participant	Dates Venues
<b>Category Water</b>				
13	Water shed organization		03	Sagamner, Ahmednagar
14	Rain Water Harvesting and Ground Water Recharging including recycling and Reuse age of waste water. An overview of Water resources development Management with respect to importance of rain water harvesting ground water recharging.	National Water Academy, Pune., Tel 24380678/2380224, Fax 24380392, Email nwa man.nic.in	02	June 13 - 22 ,2005 National Water Academy, Pune.
15	Aquatic ecosystems- function and performance reaction on pollution and concepts for protection and improvement.	CPCB	01	Aug 6-10, 2005 Centre for Environment Nature Conservation ( Nodal Training Institute), Patna, Telfax 0612-2687010, Email rcsinha1 indiatimes.com
16	Analytical Procedure for Water and Waste Water.	CPCB	02	Nov 28 -2 nd Dec., 2005 Indian Institute of Technology , Madras. Tel 2257 4157, Fax 2257 4152
17	Physical, Chemical, Biological Phenomena for Waste Water Treatment System.	CPCB	02	Indian Institute of Technology, Roorkee. Tel (0)-01332-285227, 279503, Fax 285545.
18	Alternatives in water pollution and urban sewage management, alternative paradigms	Centre for Science and Environment	01	16-18 Jan, 2006 Centre for Science and Environment, New Delhi
19	Maharashtra Water Resources Regulatory Authority (MWRRA) recently approved MWRRA Act. 2005	Yashwantarao Chavan Academy of Development Administration. (YASHDA)	05	30-Jan-2006 Yashwantarao Chavan Pratishthan Mumbai.
<b>Category GIS</b>				
20	Use of Geographical Information System (GIS), Remote sensing (RS) Global Positioning System (GTS) Technology for effective professional skills.	Watershed Organisation Trust, Fax 0241-2451134, Email info wotr.org	03	Watershed Organisation Trust, Fax 0241-2451134, Email info wotr.org
21	GIS Application for Environmental Planning and Management..	Center for environmental science Engineering (CESE), IIT, Powai, Mumbai, Tel 022- 2576 7862, Fax 022-2576 4650, Email dikshit cese.iitb.ac.in	02	Aug. 29- to Sep. 2 2005, Indian Institute of Technology, Powai, Mumbai
22	Geo -Informatics , Remote sending , GIS Digital Image processing	IIEE ,New Delhi	02	20-24 th Feb, 2006 IIEE, New Delhi.

Sr. No	Training Programme	Organized By	No. of Participant	Dates Venues
<b>Category Technology</b>				
23	Membrane Technologies for recycle and reuse of domestic and industrial effluents.	Indian Environmental Association. Tel 9322834965, Fax 22611961, Email iea_hq@yahoo.co.in	03	July 15- 16 , 2005 Centrum Hall, Mumbai
24	Clean Development Mechanism (CDM) Capacity building workshop for Indian project developers.	Winrock International India (WII) , New Delhi Institute for global Environmental Strategies ,Japan.	03	Sep 28- 29 .2005 Taj Residency, Ahmedabad. Winrock International India (WII) , New Delhi
<b>Category Analytical and Laboratory</b>				
25	Analytical and Research application of gas chromatography	Vishwa Bharti Educational Charitable Trust. Tel (040) 27202831, Fax (040)27203613, Email vbtrust@yahoo.com	01	Sep 30- Oct 1, 2005 Hotel Sai Prakash, Hyderabad
26	Laboratory Quality System Management and Internal Audit as per ISO/IEC-17025	CPCB	02	Nov. 14 -18 ,2005 National Institute of Training for Standardisation of Bureau of Indian Standards, Noida, U.P. Tel 0210-2402202-07, Fax 0210-2402202/203
<b>Category Others</b>				
27	Transportation green house gas Project Development, Funding and Implementation. Utilization of alternative fuels in Indian transportation center.	United State Agency for International Development. (USAID ) National Energy Technology Laboratory( NETL) , Tel 91-11- 24198000, Fax 91-11-24198612	02	June 15-16, 2005 Taj lands end, Bandstand, Bandra(W)
28	Development of strategic action plan for MPCB.	Maharashtra Pollution Control Board.	20	Sept. 24 -25 , 2005. YASHADA, Pune.
29	Determination of Toxicity Factor of Effluent from Pesticide Industries.	CPCB	02	Sep 26-27, 2005 Club House Conference Room ,Syngenta Ltd., Goa. Tel 9822128664(M), Fax 0832-2285873
30	40th Akhil Bhartiya Marathi Vidnyan Adhiveshan	Marathi Vidnyan Parishad, Tel 2522 4714, 2522 6268, Fax 2522 6268, Email mavipa_vsnl.com	02	Dec17-19, 2005 B.P.M School, Khar, Mumbai
31	Environmental Planning for Industrial Disaster Management	CPCB	01	Dec. 19 -23, 2005 Disaster Management of Institute, Bhopal. Tel 91- 755-2466715, Fax 91-755-2466653, Email dmibpl_sancharnet.in

Sr. No	Training Programme	Organized By	No. of Participant	Dates	Venues
32	Environmental Data Interpretation and Compilation Analysis, Presentation and Reporting.	CPCB	03	Jan 30- Feb 3 ,2005	Indian Statistical Institute ,Delhi Tel 51493966, Fax 51493968, Email skn isid.ac.in
33	Natural Recourses Accounting Concepts Problems	Regional Training Institute, Mumbai	02	Feb. 2-3, 2006	Regional Training Institute, Mumbai
34	Planning and Designing of Ecocities	CPCB	02	14-18 Feb ,2006	Centre for Environment Protection Training Research Institute, Hyderabad. Tel 9140 2300 1241, Fax 91 40 2300 0361
35	Environmental Impact Assessment - Methods and Procedures.	CPCB	01	Feb 27-March 3, 2006	Indian Institute of Technology, Roorkee. Tel (0)-01332- 285227, 279503, Fax 285545.
36	Lead Auditor Course on ISO 14001	Yashwantarao Chavan Academy of Development Administration . (YASHDA)	03	20-24 Feb, 2006	YASHDA
37	Planning Designing of Ecocides	CPCB	01	14-18 ,Feb, 2006	CPCB
38	Training Programme on Web Designing to M/s. Aptech		01	4 Months	
39	Library Information Management Documentation	Environmental Recourses Unit (ERU) of Centre for Science Environment	01	20-24 th Feb, 2006	Centre for science Environment
40	State of Environmental Report (SOER) -Maharashtra	Yashwantarao Chavan Academy of Development Administration. (YASHDA)	27	24 Feb, 2006.	YASHDA
41	Financial Management Accounting for Urban Infrastructure Projects	Engineering Staff College of India Campus, Gauchibowli, Hyderabad.	02	8-10 March, 2006	Engineering Staff College, Hyderabad.
<b>Total</b>			<b>142</b>		

## ANNEXURE 5-1

### Institutions Funded by MPCB

List of Institutions / Organizations to which Financial Assistance was given for mass awareness programmes.

Sr No.	Name Address of Institute	Sub ect	Venue Date	Amount of Financial Assistance	Remar
01	Shri Swanad Lomate , Abhinav Natyadharma Pratishthan, Venkatesh Plaza, Opp. Vadekar Building , Landage Ali, Saswad, Tal Purandar, Dist Pune - 412 301	Documentary on "Water-Our Life" " Rain Water Harvesting"	16 -07-05	2,00,000/-	The pratishthan has produced a documentary film on rain water harvesting which is to be shown to students of various schools in rural urban areas of the Pune district.
02	Dr. D.K.Abyankar M/s. Maratta Chember of Comerse, Industries, Agriculture, P.O.No. 525, Tilak Rd. Pune 411 002	Workshop on Air Effluent Management solution for SMES	25-08-05 at Pune.	10,000/-	The workshop was conducted to understand the problems of "Small and Medium Scale Industries (SMI's) about air pollution generated by the industries around Pune and Pimpri - Chinchwad area.
03	Mr. Rajendra Tiwari Enviro Friend Institute, C-404, Silver Tower, Thakur Complex, Kandivili (E), Mumbai 400 101	Journal on Environment Awareness Activities	25-07-05	10,000/-	Focusing on special issues on Strategies for control of air pollution in Mumbai organized by MPCB NEERI.
04	Dr. P.S. Ramnathan Flat No. 6, Plot No. 24, Shri Narayana Soc. Raifal Range, Ghatkoper , Mumbai - 86.	Management of Bio Medical wastes"	August 2005	5,000/	Indian Society of Environmental Science and Technology organizing a seminar on BMW
05	Dr. V S. Sirwaiya Chairmen of Willson College, Chowpati, Mumbai 7.	National Conference of Management of Urban Vegetation	Sept. 23-24 th, 2005 at Mumbai.	25,000/-	This education Institute has organized conference focused on Urban Ecosystems.
06	Dr. Amaiya Kumar Sahu, NSWAI-ENVIS, Center, 25, Unique Industrial Estate, Veer Savarkar Marg., Prabhadevi, Mumbai 25.	Effect on Human Health due to Handling of Municipal Solid Waste Stream.	17 th Oct, 2005 at SNTD, Juhu, Mumbai.	10,000/-	The organization is studying on the impact on human health in the stream of MSW.
07	Dr. Vishwas Yewale President 3 , White House Society, Air Port Rd., Yerwada, Pune .411006	Jal-Dindi Abhiyan from Alandi to Pandharpur	14 TH Oct-25 th Oct, 2005, Pune.	40,000/-	It is a clean river committee Pune doing studies on river system and environmental cycles on river Indrayani and Bhima

Sr No.	Name Institute	Address of	Sub ect	Venue Date	Amount of Financial Assistance	Remar
08	Shri V . Ramtirthkar M/s. Rotary Club of Pune, C/o. Muktangan English School, 44 Vidyanagari, Parvati, Pune 9		Conference on Urban Waste Management	Sept, 2005, at C/o. Muktanga n English School, Pune.	7,500/- 25,000/	It is a rotary club of Pune creating necessary awareness About recent amendments in the relevant legislations and the dissemination of information about latest technological development in disposal of urban waste.
09	Dr. Sukumar Devotta Director National Environmental Engineering Research Institute, NEERI.		Water and Waste Water Management	Jan 20-21, 2006, NEERI, Nagpur.	1,00,000/	NEERI Organizing International workshop on management of water waste water
10	Dr. K.C. Ghanta Co - Ordinator, Dr. Babasaheb Ambedkar Technological University.		Recent Advances in Environmental Management.	Jan 27-28, 2006.	10,000/	This course intends to update the participants on the recent techniques / technologies possible to harness industrial waste even to produce wealth from the waste.
11	Shri. Mangesh Dandekar President of Murud Janjira Nagar Parishad.		Exhibition based on Environment awareness programme.	23-25Dec. 2005.	1,00,000/	This cultural Festival is related with awareness programme on Environmental conservation Pollution control.
12	Kumar Kadam Mumbai Patrkar Marathi Sangh, Patrakar Bhavan, Azad Maidan, Mumbai -400001.		Workshop on “Environment “for the journalists in Mumbai Region.		1,00,000/	Environmental awareness for media persons
13	Dr. Sanjay Joshi, M/s. Enviro –Vigil, Chhatrapati Shivaji Mahraj Hospital Campus, Kalwa - Thane-400605.		National Seminar on Health Care Management.	17 th to 19 th April.	10,000/	M/s. Enviro – Vigil. is a working in the field of Bio medical waste as a part of campaign they want to develop mass awareness among the people about management of waste in collaboration with Thane Municipal Corporation.
14	Mr. Chandrasen Borhade President of M/s. Ranjai, 19, Sunder Sadan, Panmala, Parvati, Pune – 411 030.		Workshop on Pune and Solapur Action Plan.	27 th April, 2006.	10,000/-	This workshop on Pune and Solapur action plans and specially the safety aspects of handling LNG, CNG, or LPG powered autorickshaws and 2 wheelers.

# GLOSSAR OF ENVIRONMENTAL TERMS

<b>Abatement</b>	Reducing the degree or intensity of, or eliminating, pollution.
<b>Aerated Lagoon</b>	A holding and/or treatment pond that speeds up the natural process of biological decomposition of organic waste by stimulating the growth and activity of bacteria that degrade organic waste.
<b>Aeration</b>	A process which promotes biological degradation of organic matter in water. The process may be passive (as when waste is exposed to air), or active (as when a mixing or bubbling device introduces the air).
<b>Aerobic</b>	Life or processes that require, or are not destroyed by, the presence of oxygen.
<b>Ambient</b>	Any unconfined portion of the atmosphere open air, surrounding air.
<b>Anaerobic</b>	A life or process that occurs in, or is not destroyed by, the absence of oxygen.
<b>Biochemical Oxygen Demand</b>	A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.
<b>Biodegradable</b>	Capable of decomposing under natural conditions.
<b>By-Product</b>	A secondary or incidental product of a manufacturing process that may or may not be considered as a waste.
<b>Cleaner Technology</b>	“New or modified production processes generating significantly less pollution and/or waste and/or consuming less energy than conventional processes. May involve process-integrated abatement techniques to avoid end-of-pipe emission reduction” (EU definition other definitions of the term run along similar lines). Cleaner Production is often misunderstood as being equivalent to Clean(er) or Environmentally Sound Technology (EST). However, technology is just one element of Cleaner Production. Cleaner production additionally addresses human factors such as attitudinal change, methods, monitoring and management that ensure that technology is actually used in a manner that is environmentally sound. Note that the definition of cleaner technology includes the use of end-of-pipe technology, which does not play a part in the meaning of Cleaner Production.
<b>Digester</b>	In wastewater treatment, a closed tank in solid-waste conversion, a unit in which bacterial action is induced and accelerated in order to break down organic matter and establish the proper carbon to nitrogen ratio.
<b>Disposal</b>	Final placement or destruction of toxic, radioactive, or other wastes surplus or banned pesticides or other chemicals polluted soils and drums containing hazardous materials from removal actions or accidental releases. Disposal may be accomplished through use of approved secure landfills, surface impoundments, land farming, deep-well injection, ocean dumping, or incineration.
<b>Disposal Facility</b>	Repositories for solid waste, including landfills and combustors intended for permanent containment or destruction of waste materials. Excludes transfer stations and composting facilities.
<b>Dissolved Oxygen</b>	The oxygen freely available in water, vital to fish and other aquatic life and for the prevention of odours. DO levels are considered a most important indicator of a water body's ability to support desirable aquatic life. Secondary and advanced waste treatments are generally designed to ensure adequate DO in waste-receiving waters.
<b>Effluent</b>	Wastewater--treated or untreated--that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.
<b>Emission</b>	Usually refers to fugitive or waste discharges from a process. Emissions are traditionally associated with atmospheric discharges. All such discharges are termed waste within the context of this manual.
<b>Environment</b>	The totality of circumstances surrounding an organism or a group of organisms, especially the combination of external physical conditions that affect and influence the growth, development, and survival of organisms.
<b>Environmentally Sound Technology (EST)</b>	See “Cleaner Technology”
<b>Geographical Information System (GIS)</b>	A computer system designed for storing, manipulating, analyzing, and displaying data in a geographic context.

# GLOSSAR OF ENVIRONMENTAL TERMS

<b>Groundwater</b>	The supply of fresh water found beneath the Earth's surface, usually in aquifers, which supply wells and springs.
<b>In situ</b>	In its original place unmoved unexcavated remaining at the site or in the subsurface.
<b>Industrial Waste</b>	Unwanted materials from an industrial operation may be liquid, sludge, solid, or hazardous waste.
<b>Influent</b>	Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant.
<b>Open burning</b>	Uncontrolled fires in an open dump.
<b>Organic matter</b>	Carbonaceous waste contained in plant or animal matter and originating from domestic or industrial sources.
<b>Parameter</b>	A variable, measurable property whose value is a determinant of the characteristics of a system e.g. temperature, pressure, and density are parameters of the atmosphere.
<b>Pollution</b>	Describes the presence of harmful, hazardous or detrimental constituents in an environment. A polluted environment describes a state that occurs when the assimilative capacity of the environment is exceeded, resulting in undesirable ecological changes.
<b>Pollution Control</b>	Pollution control, as opposed to pollution prevention, refers to the measures taken to control pollution within acceptable levels after it has been generated.
<b>Pollution Prevention</b>	Often used interchangeably with the term Cleaner Production. The distinction between the two tends to be geographic - pollution prevention tends to be used in North America, while Cleaner Production is used in other parts of the world. Both approaches focus on a strategy of continuously reducing pollution and environmental impact through source reduction - i.e. eliminating waste within the process rather than at the end-of- pipe. However, Cleaner Production includes the aspect of reduction of impacts and risks across the life cycle of a product, and in this sense is a more comprehensive approach than pollution prevention. Process Control The manner in which a production system's reliability and performance are ensured. Process control is crucial to operating efficiency, productivity and product quality.
<b>Recovery</b>	Defined as the extraction from a waste of some components which have a value in other uses.
<b>Recycling</b>	The use by one producer of a waste generated by another. Alternately, the producer generating and reusing the waste may be one and the same.
<b>Regulation</b>	Issued by a government agency, a regulation gives more detailed direction for implementation of a law.
<b>Regulatory Costs</b>	Also known as compliance costs, these are costs incurred to comply with national/federal/state/local environmental laws
<b>Resources</b>	An available supply that can be drawn on when needed. In the context of the environment, resources is a term used to cover water, energy through fossil fuels, metal ores, other raw materials which can be provided through nature alone.
<b>Reuse</b>	The repeated use of a "waste" material in a process.
<b>Source Reduction</b>	A term that is rather synonymous with Cleaner Production. Prevents the generation of wastes and environmental releases, as well as conserving natural resources. Includes both process and product changes. The six primary source reduction techniques are process efficiency improvements, material substitution, inventory control, preventive maintenance, improved housekeeping and in-process recycling.
<b>Sustainable Development</b>	Defined by the Brundtland Report (also known as "Our Common Future") as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." The strategy of Cleaner Production is driven by the vision of sustainable development.
<b>Unit Process</b>	A discrete activity (production, processing or servicing action) that has distinct energy, labour and material inputs and outputs and can be considered separately for the purposes of inventory and analysis.

## GLOSSAR OF ENVIRONMENTAL TERMS

<b>Waste</b>	Taken as a broad term to cover any non-product discharge from a process. Thus, it describes discharges in the gaseous, liquid and solid phases.
<b>Waste Minimi ation</b>	An approach introduced by the U.S. Environmental Protection Agency (USEPA). In this approach, waste and pollution reduction occurs on-site, at the source through changes of input raw materials, and/or technology changes, good operating practices and product changes. Compared to Cleaner Production, waste minimization is in one sense broader, in that it also includes off-site recycling of waste, but in another sense, it is narrower, since it does not cover product (re)design to minimize all life cycle impacts.
<b>Wastewater</b>	The aqueous effluents from a process that pass to drain or to storage.