

3rd QUARTERLY ACTION TAKEN REPORT

(As on 31.07.2004)

On the

Directives of the Supreme Court of India
in the matter of W.P. (C) No. 657 of 1995
October 14, 2003.



MAHARASHTRA POLLUTION CONTROL BOARD
Kalptaru Point, Sion Circle, Sion (East)
Mumbai 400 022

AUGUST, 2004

CONTENTS

| S.No. | Contents | Page No. |
|--------------------|--|-----------------|
| 1.0 | Background | 1 |
| 2.0 | Chronology of the Actions Taken since 1 st May 2004 | 1-4 |
| 3.0 | Closure of defaulting industries | 5-7 |
| 4.0 | Removal of hazardous wastes from illegal dump sites | 7-13 |
| 5.0 | Clean technology for re-refining/recycling of used oil/waste oil | 13-15 |
| 6.0 | Inventorization | 15 |
| 7.0 | Implementation of HWs Transportation guidelines | 16 |
| 8.0 | Show cause notices to Auctioneers | 16 |
| 9.0 | Strengthening of MPCB | 16-17 |
| 10.0 | Awareness programme | 18 |
| 11.0 | Rehabilitation of dump sites | 18 |
| 12.0 | Display of information regarding authorization | 18-19 |
| 13.0 | Ship-breaking | 19 |
| 14.0 | Burning of hazardous and non-hazardous wastes on beaches | 19-20 |
| 15.0 | Bio-Medical Waste | 20 |
| 16.0 | Plastic Waste management | 20 |
| ANNEXURES : | | |
| ANNEXURE I | : SCMC committee - MIDC meeting and Tarapur visit report . | 21-25 |
| ANNEXURE II | : SCMC committee - MIDC Mahad and Lote-Parshuram visit report . | 26-28 |
| ANNEXURE III | : LoA issued for Butibori and Ranjangaon TSDFs. | 29-34 |
| ANNEXURE IV | : Letters received from IPCL and Sadhana Nitrochem with payment of fine. | 35-38 |
| ANNEXURE V | : Compliance Report of MIDC submitted to MoEF. | 39-40 |
| ANNEXURE VI | : Minutes of meeting convened by CEO, MIDC on 5/7/2004. | 41 |
| ANNEXURE VII | : Minutes of meeting convened by Chief Secretary, Govt. of Maharashtra on 12/5/2004. | 42-44 |
| ANNEXURE VIII | : Letter. written by Chief Secretary, Govt. of Maharashtra to CEO, MIDC reg. Compliance of Supreme Court directives. | 45-46 |

| | | |
|---------------|--|-------|
| ANNEXURE IX | : Letter sent by MPCB to Director, NRSA. | 47-48 |
| ANNEXURE X | : Reply received from NRSA | 49 |
| ANNEXURE XI | : Letter sent by MS to all Regional Officers of the Board. | 50 |
| ANNEXURE XII | : Summary Inventory of the Hazardous Waste in three sub regions of Navi-Mumbai and Pune. | 51-52 |
| ANNEXURE XIII | : List of Authorized Hazardous Waste Transporters. | 53-54 |
| ANNEXURE XIV | : List of Authorizations issued to Ship breakers. | 55 |
| ANNEXURE XV | : Public Notice Issued on 30/7/2004 on Bio-Medical Wastes. | 56 |

MAHARASHTRA POLLUTION CONTROL BOARD

Subject: 3rd QUARTERLY ACTION TAKEN REPORT as on 31.07.2004

Reference: Orders of the Hon'ble Supreme Court of India, dated 14.10.2003 regarding Management of hazardous wastes.

1.0 Background

The Hon'ble Supreme Court of India is considering a public interest litigation regarding management of hazardous wastes in India vide Civil Writ Petition no. 657 of 1995. The Court considered various recommendations contained in the report of the High Powered Committee, appointed under the chairmanship of Prof. M.G.K.Menon, and issued a detailed order dated 14.10.2003 directing all the concerned authorities to take follow up actions in a time bound manner on those directives. Further, the Court also appointed a Monitoring Committee, under the Chairmanship of Dr. G. Thyagarajan, Former Director, CSIR, to oversee the compliance of the directives issued. The Monitoring Committee is required to submit quarterly report to the Court regarding actions taken by the concerned authorities.

First quarterly Action Taken Report was submitted by Maharashtra Pollution Control Board (MPCB) on 31.01.2004. The 2nd quarterly Action Taken Report as on 30th April 2004 was submitted in the 2nd week of May 2004. The 1st and 2nd Action Taken Reports have been placed on the website of Maharashtra Pollution Control Board (<http://mpcb.mah.nic.in>).

This is the 3rd quarterly Action Taken Report presenting actions taken during the period May to July 2004.

2.0 Chronology of the Actions Taken since 1May, 2004

| | |
|-----------|---|
| 12.5.2004 | Meeting with Regional Officers of the Board to discuss issues pertaining to Hazardous waste inventorization and implementation of SC directives in respect of Hazardous waste generating units. |
| 12.5.2004 | Chief Secretary, Government of Maharashtra took a meeting of the officers of MIDC. MPCB and Environment Department to review the problems concerning the existence of illegal Hazardous waste dumps in the MIDC industrial areas and storage of CETP sludge in the MIDC industrial Estates. |
| 14.5.2004 | Review meeting taken by Director (Environment) Govt. of Maharashtra on the HW management in the state and compliance of the directives of the Hon'ble Supreme |

| | |
|-----------------------|--|
| | Court of India and the review of the ATRs submitted to SCMC. |
| 15.5.2004 & 16.5.2004 | Seminar organized by Lions Club Pune on Sustainable Development. MPCB collaborated with the organizers to create awareness in the public on hazardous wastes, Supreme Court directives and their implementation in the state. |
| 19.5.2004 | Interactive meeting organized by Toxiclink, New Delhi at Mumbai. Dr. Claude Alvares, Member SCMC, participated to discuss various aspects of waste management in the country. |
| 21.5.2004 | Meeting with Tarapur Industries Association to discuss the issues on hazardous waste management in Tarapur Industrial Area with reference to the directions issued by MPCB under Sec. 33A of water Act, 1974 on CETP functioning and release of the hazardous wastes through the waste water. |
| 28.5.2004 | Meeting with Metal Finishers Association of India regarding operation of CETP and hazardous waste treatment and disposal issues concerning these industries. |
| 28.5.2004 | Additional Municipal Commissioner, Municipal Corporation of Greater Mumbai organized a meeting on Bio-medical wastes management in Mumbai as a part of compliance of the Apex Court directives. |
| 2.6.2004 | Participation in the Expert Group meeting organized by The Energy Resource Institute, Delhi to discuss the National policy on e-waste management in India. |
| 4.6.2004 | Visit of SCMC team to Maharashtra. Dr. Claude Alvares visited Jawaharlal Nehru Port Trust with the officers of the MPCB to discuss the issues concerning the 133 containers of used / waste oil lying in JNPT with reference to the directives of SC in the matter and to physically inspect the conditions of those containers. |
| 5.6.2004 | Dr. Claude Alvares participated in the World Environment Day celebrations organized by MPCB and delivered First Lentin Memorial Lecture on the directives of the Hon'ble Supreme Court of India on the management of Hazardous wastes and role of the public in the compliance of those directives. He also took a review meeting to gauge the status of actions taken by MIDC on the Apex Court directives. |
| 6.6.2004 | Dr. Claude Alvares, Member, SCMC visited Tarapur Industrial Area to review the compliance of the Apex Court directives. The CETP sump number 3 was found to have a pH of 2 and therefore SCMC ordered closure of 75 industrial units which were contributing effluent to this sump. The committee also inspected the old dumps of hazardous wastes inside and outside the industrial area. |

| | |
|-----------|--|
| | The committee had discussions with MIDC, MPCB and TIMA and gave directions. The report of the committee is placed at Annexure I |
| 7.6.2004 | MPCB sponsored a National seminar on Sustainable Development and Emerging Technologies organized by Riverhine Institute of Environmental Management, Pune as apart of awareness creation on hazardous waste management among the industries, educational and research institutes, universities, industries and the local people. Dr Claude Alvares and Dr.Tapan Chakrabarty addressed the gathering at this seminar on the hazardous waste management issues. A meeting was also held to discuss the matter pertaining to the import of lead acid batteries and the issues that were raised in the note submitted by Dr. Boralkar on this subject in the SCMC meeting held at Delhi in April, 2004. SCMC team consisting of Dr. Claude Alvares, Dr.Tapan Chakrabarty and Dr. Pendse visited industrial unit of TELCO in Pimpri- Chinchwad to review the compliance of the SC directives. |
| 8.6.2004 | SCMC visited Mahad MIDC and inspected CETP and Sludge management at the CETP. The committee also visited 4 industrial units in MIDC to oversee the compliance in respect of hazardous waste management. A closed pharmaceutical unit was noticed to be permitting dumping of HWs brought from Karnataka. The committee also discussed the issue regarding the establishment of TSDF at Mahad with MIDC official present during the visit. The report of the SCMC committee is annexed at Annexure II |
| 8.6.2004 | SCMC committee visited Lote Parshuram industrial estate and inspected CETP. The committee also visited two industrial units engaged in smelting of the lead acid batteries for lead recovery and a closed unit in which large quantities of zinc ash is stored, respectively. Dr. Claude Alvares also addressed the Industries Association on SC directives and steps required to be taken by the industries to comply with those directives. The directives given by the committee after the visit are annexed at Annexure II . |
| 11.6.2004 | As a part of awareness generation program, MPCB participated in the meeting of the battery dealers from Mumbai region organized by battery manufacturers M/s SF. The issues pertaining to the implementation of the Used Batteries (M. &H.) Rules and prevention of backyard smelting of lead were discussed. |
| 14.6.2004 | MPCB participated in the seminar organized by Tata Memorial Hospital, Mumbai on Bio-Medical Waste |

| | |
|-----------|---|
| | management and addressed various issues on the practices, policies and implementation of the BMW Rules and the roles of the regulators and the generators of the BMWs in fulfilling the obligations under those rules. |
| 15.6.2004 | As a part of awareness generation program, MPCB participated in the meeting of the battery dealers from Navi-Mumbai region organized by battery manufacturers M/s SF. The issues pertaining to the implementation of the Used Batteries (M. &H.) Rules and prevention of backyard smelting of lead were discussed. |
| 17.6.2004 | Presentation was made to Principal Secretary (Environment). on the compliance of the directives of SC in WPC 657/1995 on hazardous waste management. |
| 22.6.2004 | Principal Secretary Environment took review meeting on the compliance of the directives of the Hon'ble Supreme Court of India on HW management. |
| 13.7.2004 | Meeting with TIMA office Bearers to review the follow up actions regarding pollution control at Tarapur and compliance of SCMC directives |
| 19.7.2004 | Principal Secretary Environment took review meeting on the compliance of the directives of the Hon'ble Supreme Court of India on HW management in Maharashtra with a particular reference to the compliance of the issues on closure of industries, setting up and notification of the new TSDFs and putting up of the display boards by the industries, as mentioned in the letter written by the Chairman SCMC to the Chief Secretaries of the states and Chairmen of SPCBs dated 31.5.2004 |
| 20.7.2004 | MPCB participated in the workshop on Sound environmental management of the used oil/ waste oil at Navi Mumbai organized by Confederation of Indian Industries. |
| 27.7.2004 | MPCB participated in a workshop cum meeting organized by All India Institute of Local Self Government and state Urban Development Department on Waste to Energy projects. Presented MPCB view on utilization of industrial wastes for energy generation and the directives of the Hon'ble Supreme Court of India. |
| 28.7.2004 | Meeting with Association of Medical Consultants regarding the management of Bio-medical wastes. |
| 29.7.2004 | Meeting held with Tarapur Industries Manufacturers Association to review the progress of the compliance of the directives of SCMC team given during their visit to Tarapur MIDC. |

3.0 Closure of defaulting industries

As directed by the Hon'ble Supreme Court of India, it was decided that industries identified as per Hazardous Wastes (M. &H.) Rules, 1989 shall be considered for issuance of closure directions. As reported in the earlier ATRs as per 1989 Rules, 3427 units were identified as HW generators in Maharashtra. However, a fresh assessment is being carried out to firmly ascertain if there are any additional HW generating units in Maharashtra. As per the directives of Hon'ble Supreme Court of India, action was initiated against the industries who did not possess authorization and also those who were not complying with the conditions of the authorization granted to them by MPCB. The status in terms of closure directions issued by MPCB and withdrawal of those directions in respect of industries who have complied with the orders of the Apex Court and MPCB is as under:

| Category | Action by MPCB |
|---|--------------------------|
| Total no. of industries operating without Authorization / not complying with Authorization Conditions: closure directions issued till date. | 823 |
| No. of industries now complying with the directions and hence the closure directions withdrawn. | 617 |
| No. of industries closed for non compliance. / electric supply disconnected. | 23 |
| No. of unit found to be closed for various reasons. | 75 |
| No of industries who have been granted permission to store the HWs due to TSDF distance criteria | 108 |
| No. of units who have become member of CHWTSDF. | Taloja: 1528 TTC: 845 |

Issuance of directions, levy of fines etc. is continued so that the industries are compelled to take the HWs to common TSD facilities. Establishment of new TSDF at Butibori (Nagpur) and Ranjangaon (Pune) are also in the initial stages of development. Besides, in the areas where no TSDFs are available, the industries are permitted to store the wastes. Wherever possible, the industries have been directed to carry out on-site disposal (by recycling) or incineration (only if incinerator is available) or sale the wastes to registered recyclers who possess EST and ESM facilities and are authorized to receive the wastes for recycling/ incineration.

Two CHWTSDFs have been established in the Maharashtra. These are at TTC and Taloja industrial areas, respectively, which are within a reasonable distance of about 100 km of the majority of HW generating units in 7 districts near Mumbai-Thane.

The incineration facility is a part of the TSDF at Taloja. The erection of this facility has been delayed due to monsoon and is expected to be completed within next 4 months. Till this facility is completed, the TSDF is accepting the incinerable waste and storing it in their premises.

In case of the industries located in Nagpur, Aurangabad, Amravati, Kolhapur, Pune & Nashik districts, where the distance from CHWTSDF is more than 100 km, it was decided to permit them to store the Hazardous wastes on-site till CHWTSDF is established by MIDC for their region. In this regard, MIDC has issued LoA to the operators for CHWTSDF who have been qualified to establish such facilities at But Bori (for Nagpur/Amravati region), Ranjangaon (Pune/Kolhapur region)

The letters of Awards issued by MIDC are annexed at **Annexure III**

TSDF Sites

| S. No. | Location | Capacity | Status |
|--------|----------------------|--|---|
| 1 | Taloja, Raigad | SLF: 120000 TPY Incinerator: 2.0TPH | Operational (2002) The incinerator shall be operational after a period of about 4 months |
| 2 | TTC, New Mumbai | SLF: 10000 TPY | Operational (2004) |
| 3 | Buti Bori (Nagpur) | SLF:50000 TPY Incinerator: 2.0 TPH | LoA is issued by MIDC on 2.6.2004 in pursuance of the decisions taken at the meeting convened by Chief secretary, Government of Maharashtra on 12.5.2004. Rapid EIA started. Site notification shall be issued in December 2004 after Public hearing. |
| 4 | Ranjangaon (Pune) | SLF: 50000 TPY Incinerator: 2.0 TPH | LoA is issued by MIDC on 2.6.2004 in pursuance of the decisions taken at the meeting convened by Chief secretary, Government of Maharashtra on 12.5.2004. Rapid EIA started. Site notification shall be issued in December 2004 after Public hearing. |
| 5 | Shendre (Aurangabad) | SLF: 50000 TPY Incinerator: 3.0 TPH | MIDC has received the bids and these are under scrutiny |
| 6 | Mahad | Incinerator: 3.0 | MIDC has proposed to |

| S. No. | Location | Capacity | Status |
|--------|----------|----------|---------------------|
| | | TPH | reinstate the bids. |

4.0 Removal of hazardous wastes from illegal dump sites

The Hon'ble Supreme Court has directed that illegal and /or unauthorized dumping of hazardous wastes shall be lifted and sent to secured landfill (TSDf). In this regard, MPCB has adopted a three pronged approach to ensure the compliance the directives of the Apex Court.

4.1 The Hazardous Waste lying in the premises of Industries:

Directions were issued by MPCB to the industries, which were reported to have been storing the HWs in their premises, to lift the H.Ws. and send it to the nearest CHWTSDf immediately. Following table shows Quantity of hazardous waste received at TTC & Taloja CHWTSDfs till the 31st July 2004.

(a) Hazardous Waste Received at Taloja CHWTSDf

| Sr. No. | Month | Direct disposal in SLF (MT) | Treatment and disposal in SLF (MT) | Disposal by Incineration (MT) | Total (MT) |
|---------|--------------|-----------------------------|------------------------------------|-------------------------------|--------------|
| 1 | May 04 | 5000 | 8000 | 300 | 13300 |
| 2 | June 04 | 1800 | 1000 | 400 | 3200 |
| 3 | July 04 | 1240 | 905 | 335 | 2480 |
| | Total | 8040 | 9905 | 1035 | 18980 |

(b) Hazardous Waste Received at TTC CHWTSDf

| Sr. No. | Month | Direct disposal in SLF (MT) | SLF with Treatment (MT) | Incineration (MT) | Total (MT) |
|---------|--------------|-----------------------------|-------------------------|-------------------|---------------|
| 1 | May 04 | 258 | 77 | NA | 335 |
| 2 | June 04 | 0.55 | nil | NA | 0.55 |
| 3 | July 04 | nil | 6 | NA | 6 |
| | Total | 258.55 | 83 | --- | 341.55 |

Below listed 18 numbers of industries were issued Proposed Directions as per Rule 16 (3) of the H.W. Rules levying the fine, for storing large quantity of HW in their premises & directed to send it to CHWTSDf immediately.

| Sr. | Name of the Industry | Approx. quantity | Proposed levy of |
|-----|----------------------|------------------|------------------|
|-----|----------------------|------------------|------------------|

| No. | | of hazardous waste stored (MT) | fine @1500/- per ton (in Rupees) |
|-----|--|--------------------------------|----------------------------------|
| 1 | M/s. Hindustan Lever Ltd., | 1500 | 22,50,000/- |
| 2 | M/s. Cummins India Ltd., | 500 | 7,50,000/- |
| 3 | M/s. Albright & Wilson Chem Ltd., | 2000 | 30,00,000/- |
| 4 | M/s. Century Rayon Ltd. | 1000 | 15,00,000/- |
| 5 | M/s. National Rayon Corporation Ltd., | 2000 | 30,00,000/- |
| 6 | M/s,. Owens Corning India Ltd., | 2000 | 30,00,000/- |
| 7 | M/s. Bajaj Electricals Ltd., | 300 | 4,50,000/- |
| 8 | M/s. Thermax Ltd., [Chemical Divison] | 500 | 7,50,000/- |
| 9 | M/s. Indian Petrochemicals Corporation Ltd., MGCC Division | 1000 | 15,00,000/- |
| 10 | M/s. Viraj Alloys, | 300 | 4,50,000/- |
| 11 | M/s. Everest India Ltd., | 200 | 3,00,000/- |
| 12 | M/s. Chemosol Industries (India) Pvt. Ltd., | 1000 | 15,00,000/- |
| 13 | M/s. Sadhana Nitrochem Ltd., | 3000 | 45,00,000/- |
| 14 | M/s. MICO Bosch Group, Motor Industry Co., | 2000 | 30,00,000/- |
| 15 | M/s. Zenith Ltd., (Chemical Division), | 20,000 | 3,00,00,000/- |
| 16 | M/s. Shree Precoated Steels, | 500 | 7,50,000/- |
| 17 | M/s. Colour Chem, | 5,000 | 75,00,000/- |
| 18 | M/s. E B G India Pvt. Ltd., | 3,000 | 45,00,000/- |
| | Total | 45,800 MT | Rs. 6.87 Cr. |

The issuance of directives on levy of fines for not taking the wastes to TSDFs had a very positive impact and the industries have started sending HWs to the TSDFs as may be seen from the figures of the wastes received by the CHWTSDFs till 31.7.2004. MPCB is continuously monitoring the actions being taken by the industries in sending the wastes to TSDFs through its field staff.

Out of above M/s IPCL, Nagothane, Dist Raigad and M/s Sadhana Nitrochem Ltd., Roha, Dist Raigad have paid the fine totaling Rs. 16.62 lakhs to MPCB. The letters received from these industries are annexed at **Annexure IV**.

Since the HW disposal operations at the CHWTSDFs near Navi Mumbai are closed due to the monsoon, they have sealed the TSDFs. Although the operations are stopped by TSDFs, they are still receiving the wastes for storage and conditioning. The stored waste shall be disposed off after monsoon in the existing TSDFs.

As mentioned earlier, TSDF at Taloja is establishing an incineration facility at its existing site. The erection and commissioning of the incinerator has been delayed due to monsoon and is expected to be completed in another 4 months or so. Till such time the TSDF operators are receiving the incinerable wastes and storing it in the facility. The progress of erection and commissioning of the incinerator is being monitored by MPCB along with the storage arrangements made by the TSDF operators for storing such wastes.

4.2 Hazardous Waste lying in MIDC Industrial areas:

MIDC has also started action to lift the HW from illegal dump sites in the area on directions given by the SCMC team. The SCMC had discussed the matter with MIDC on 5.6.2004 and subsequently visited Tarapur industrial area on 6.6.2004. SCMC had directed MIDC to lift all the waste lying in the industrial areas viz., Patalganga, Ambarnath Badlapur TTC, Roha, Taloja and Dombivali to TSDF at Taloja. The report of SCMC visit and the directions given by them is annexed at **Annexure I**. The actions taken by MIDC are given in the report submitted by MIDC to the Member Secretary, SCMC in the Ministry of Environment and Forests, G.O.I. and is annexed at **Annexure V**.

SCMC had directed MIDC to bear 50% cost of the transportation of HW from the industrial areas and remaining 50 % to be borne by the industries in those MIDC areas. Similarly for CETP, the TIMA was directed to pay 50% cost to MIDC before 31.7.2004. Accordingly, CEO MIDC had convened a meeting on 5.7.2004 with Tarapur Industry Manufacturers Association (TIMA). The minutes of the meeting held by MIDC on 5th July, 2004 are annexed at **Annexure VI**. The report submitted by MIDC to the Ministry is annexed at **Annexure V**.

On directions from SCMC when it visited Tarapur industrial area, MPCB had immediately issued closure notices to 75 industries for their failure to comply with the consent conditions and for discharging the effluent with pH 2.0 at sump no. 3 at MIDC Tarapur. MPCB had also convened a meeting of TIMA and directed the industry association to submit a Bank guarantee of Rs. 25000.00 each. An undertaking was also taken from those industries that lapse on part of any industry, out of those 75 industries which were closed

by MPCB, will result in forfeiting of all the 75 Bank guarantees given by those industries.

The permissions to restart the closed industries were given to those 75 industries on the above conditions. Besides, a **Watchdog** mechanism has been created by MPCB in a form of a committee headed by a Sr. Citizen from Tarapur with a member from Industry and sub-regional officer as MPCB's representative to monitor the compliance of the MPCB's directives. This committee has been playing an important role in the pollution control in MIDC Tarapur. Since the formation of this watchdog committee, the pH at sump no. 3 continues to be within the range of 5.5 to 9.0, as per the MPCB's conditions of consent given to Tarapur, CETP.

SCMC team that had visited Maharashtra during June 2004 had given directions to MIDC and also directed them to submit the compliance report on those directions to the Member Secretary, SCMC, Ministry of Environment and Forests, Govt. of India. MIDC had made a presentation before SCMC regarding the compliance of the directives on 7.7.2004 at Delhi meeting and has also submitted report to the Ministry and its copy is annexed at **Annexure V**.

(a) CETP sludge:

CETPs in the MIDC areas are one of the major sources of H.W. generation, in the form of ETP sludge. As per the information gathered by SCMC visiting team during June 4-9, 2004, the situation on the HWs. lying in MIDC, CETP sumps is as follows:

| Sr. No. | Name of Industrial Area | Qty. of H.W. (M.T.) Approx. |
|----------------|--------------------------------|------------------------------------|
| 1 | Mahad | 1747 |
| 2 | Roha | 200 |
| 4 | Taloja | 200 |
| 5 | Badlapur | 15 |
| 6 | Ambernath | 25 |
| 7 | Dombivali (I & II) | 210 |
| 8 | TTC, Thane Belapur | 200 |
| 9 | Patalganga | 200 |
| | Total | 2797 |

(b) illegal dump sites:

Besides, there are plots in MIDC areas, mentioned below, which were earmarked for the disposal of solid non-hazardous wastes. However, these plots, over a period of time, have now become the illegal dump sites for H.Ws. due to incessant dumping of the HWs and non-HWs at those sites. Lack of vigilance by MIDC is the another reason for non-conforming use of those plots for unabated disposal of wastes by the industries.

There are also some closed units in MIDC area. The premises of such units are being used for illegally dumping H.Ws. The information on such closed industries is as follows:

| Sr. No. | MIDC area | Illegal dump (Approx. Qty., MT) |
|----------------|--|--|
| 1. | MIDC, TTC (A & EL Block) | 200 |
| 2. | MIDC, TTC (C Block) | 100 |
| 3. | MIDC, Dombivali | 180 |
| 4. | MIDC, Dombivali Phase-II | 30 |
| 5. | MIDC, Ambernath (Chikhlori & Morivali) | 17 |
| 6. | MIDC, Ambernath | 08 |
| 7. | MIDC, Badlapur | 15 |
| 8. | MIDC, Tarapur | 40,000 |
| 9. | MIDC, Patalganga | 200 |
| 10. | MIDC, Roha | 200 |
| | Total | 40950 |

Another 1.5 lakh MT of HWs are lying at a dump site in Tarapur MIDC industrial area. MIDC proposes to carry out its rehabilitation and is preparing a proposal in consultation with NEERI. The decisions taken by MIDC in this regard in a meeting held on 5.7.2004 are annexed as **Annexure VI**

Action taken:

As reported in the 2nd ATR, MPCB had issued directions to MIDC under Section 5 of E (P) Act, 1986 for Tarapur area on 16.3.2004 in order to get the illegal dumps removed before monsoon from CETPs as well as the illegal dump sites within the MIDC areas. MIDC agreed to remove the H.W. (sludge) from CETPs, it did not agree to remove H.Ws. from the illegal dumpsites. Therefore the matter was taken up with State Government to sort out the issues pertaining to removal of the HW from illegal dumpsites. A meeting was held under chairmanship of Chief Secretary on 12.5.2004 to further discuss the various issues regarding the hazardous waste management in MIDC areas. The minutes of the meeting are annexed at **Annexure VII**.

As a sequel to the above meeting, a letter was sent by Chief Secretary to Chief Executive Officer, MIDC to comply with the orders of Hon'ble Supreme Court and take effective steps to get the illegal HW dumps removed from the MIDC areas in a time bound manner. The letter dated 19.5.2004 addressed by Chief Secretary to C.E.O., MIDC is annexed at **Annexure VIII**.

4.3 H.W. lying outside MIDC area:

As mentioned in the 2nd ATR submitted by MPCB, it was proposed to outsource this work to identify and quantify the illegal H.W. dump sites outside MIDC areas. Accordingly, the offers were invited from the reputed consultants for this work.

However, as discussed in the SCMC meeting MPCB also decided to explore the possibilities of using the services of National Remote Sensing Agency or such other organization which can identify the illegal HWs dumpsites within and outside MIDC areas by taking satellite imageries of the areas. This was in pursuance of the discussions held in the 4th meeting of SCMC at New Delhi on 7-8th April, 2004.

Subsequently, the Chairman SCMC visited NRSA, Hyderabad and held discussions with the Director, NRSA to gauge if this method can yield positive results. The issue had also come up for discussion at the SCMC meeting held at Kolkata on 26th May 2004.

It was mentioned that NRSA has agreed to undertake such a project in Maharashtra State. It was suggested that MPCB should approach NRSA to finalize the modalities of the pilot project on identification illegal HWs dumpsites.

Accordingly a letter dated 29.6.2004 was sent by MPCB to Director, NRSA (annexed as **Annexure IX**). A reply dated 14.7.2004 received from Deputy Director, NRSA, Hyderabad is annexed at **Annexure X**. Accordingly, NRSA has been informed the willingness of MPCB bear the cost of Rs. 4.0 lakhs for the above project. NRSA has also been requested to send a detailed technical and financial proposal for approval to MPCB. The proposal is awaited from NRSA. The matter is being followed up with NRSA so that the project work can start on cessation of monsoon.

The Regional Officers of the Board have been further directed to take action against the industries who are still not sending the wastes to TSDFs. The letter dated 23.7.2004 is annexed at **Annexure XI**

5.0 Clean technology for re-refining/recycling of used oil/waste oil

The Hon'ble Supreme Court had directed that re-refining/ recycling of used oil/waste oil shall be done only through application of clean technology. As per Rule 21 of the HW (M&H) Rules, 1989, and its amendments, it is mandatory for all industries engaged in recycling /re-refining of the waste/used oil to use only clean technology for re-refining and reuse/recycling activities within six

months from the date of publication of amendment rules on May 21, 2003 failing which the registration of such units shall cease to be valid. Further, the SPCBs are required to submit compliance report on this issue within three months to Central Pollution Control Board.

MPCB had issued Public Notice in the leading news papers for the information of all concerned regarding provisions under the rules and the Apex Court directives in this regard. MPCB has suspended all the authorizations of defaulting units. Member Secretary has appointed an Expert Committee for verification of compliance in terms of adoption of clean technology in the process of re-refining and recycling. The committee consists of experts from University Department of Chemical Technology of Mumbai University, Central Pollution Control Board, Industry Association, M.P.C. Board Member and Regional Officer (HQ), MPCB. The Committee has started functioning.

Following is the position of industries providing environmentally sound technology (EST) for the recycling and re-refining of the waste oil/used oil.

| Sr. No | Name of the Industry | Technology used | Capacity MT/Year |
|---------------|--|---|-------------------------|
| 1 | M/s Deepak & Co. Thane | Thin film evaporation process | 1800 |
| 2 | Sai Om Petro Specialities Ltd. | Vaccum distillation process with clay treatment | 15000 |
| 3 | Ameet Lubricants and Chemicals, Saswad, Pune (TFE process is not operational. Plant closed due to internal problems. Likely to start by July, 2004). | Thin film evaporation process | 5010 |
| 4 | Industrial Esters and Chemicals, (Six months period recommended to change over to EST) | Vaccum distillation process with clay treatment | 8000 |
| 5 | Shiva Petro synth, Palghar (Change over to EST in 2 months. Work in progress) | Vaccum distillation process with clay treatment | 7200 |

List of industries registered with MoEF/CPCB as

Registered Reprocessor / Refiner of Non ferrous metals.

| Sr. No | Name & address of industry | Registration number | Validity Upto | Authorised for | Quantity (MT/Y) |
|--------|--|--|---------------|-------------------------------------|-----------------|
| 1 | N.V.Metals and Alloys , Umroli, Tal Palghar, Dist Thane | B- 29016 (196)/ 1 (Reg)/03/PCI-1/2661 dt. 10.2.04 | 10/10/2005 | Authorized by CPCB for reprocessing | 600 |
| 2 | Astron Engineers India Ltd,Lavale Tal Mulshi Dist Pune | B- 29016 (79)/1.(Reg) /04/HWMD – 6027 dt. 1.1.2004 | 31/07/2005 | Authorized by CPCB for reprocessing | 1200 |
| 3 | Pra-Sun Ferro Alloys & Metal Casting Pvt.Ltd. Talasri, Dist. Thane | B-29016 (196)/1 (Reg) /04/ HWMD/ 5730 dt. 25.03.2004 | 14.10.2005 | Authorized by CPCB for reprocessing | 7800 |
| 4 | M/s Saurabh Metal Refinery, Sapronda, Tal. Wada, Dist. Thane | 23-1 (486) 2001- HSMD dt. 11.3.2003 | 11.03.2005 | Authorized by CPCB for reprocessing | 1440 |
| 5 | Pooja Pigments, Kalamna, Dist.Nagpur | B- 29016 (970)/1 (Reg)/ 03/ PCI-1/ 3247 dt. 19.02.2004 | 20.12.2004 | Authorized by CPCB for reprocessing | 2100 |

Both the ports viz. JNPT/MbPT have been directed to auction/sale the waste oil/used oil and other wastes listed in Schedule 4 only to the actual users / recyclers registered with CPCB.

The Ministry of Environment and Forests Govt. of India has further amended the HW Rules, 1989 w.e.f. from 19.7.2004 vide notification no. S.O. No. 826(E). An extension of six months has been granted under those revised rules to the recyclers/ re-refiners to set up the EST/ESM within 6 months i.e. up to 31.12.2004. MPCB is monitoring the progress in this matter with such industrial units that are operating in Maharashtra so that they set up the required EST/ESM facilities on or before 31.12.2004.

6.0 Inventorization

MPCB has employed a novel approach to carry out the inventorization of the HWs as directed by the Apex Court. The matter was discussed at the meeting of SCMC held at Delhi in April, 2004. It is a stupendous task to carry out re-inventorization of HWs since

there are a large number of units generating the HWs spread over several industrial areas. The data / information available in the application of the industries for consent/authorization as well as authorization issued by the Board are being examined by a group of expert chemical engineers. Accordingly, the quantity of hazardous waste generated by the industry is being worked out keeping in view the manufacturing process, quantity of raw materials used, quantity of the finished products produced and other aspects of mass balancing. This approach was found to be practical to get fairly accurate information on the H.W. generation by a particular industry.

The re-inventorization work in respect of three sub regions of Navi Mumbai and Pune districts has been completed. The summary of the results of this exercise is annexed as **Annexure XII**.

The estimated quantities of the HWs in the above sub regions and Pune district is given in the table below.

Table

Hazardous Waste generation at MIDC industrial area at New Mumbai Region & Pune District.

| Sr. No. | Disposal Method | New Mumbai MT/Year | Pune Dist. MT/Year |
|----------------|------------------------|-------------------------------|-------------------------------|
| 1. | Secure Landfill | 43210 | 30732 |
| 2. | Incineration | 50772 | 12444 |
| 3. | Sale / Recycling | 14745 | 12665 |
| | Total | 108727 | 55841 |

Note: For other nine regions, work is in progress and as per the current estimate, it is likely to be completed by November 2004.

7.0 Implementation of HWs Transportation guidelines

According to the Hon'ble court's order, transportation of hazardous wastes is to be done strictly as per Rule 7 of the Hazardous Waste (M.&H.) Rules 2003 and the guidelines issued by Central Pollution Control Board in that regard. In compliance with the orders of the Apex Court, MPCB issued directions to all hazardous waste generators, auctioneers, buyers, sellers, transporters and all other concerned involved in the transportation of hazardous wastes that they must comply with the CPCB guidelines, failing which MPCB shall initiate legal action under the Environment (Protection) Act, 1986. Further, pending verification of the compliance of the guidelines, MPCB revoked authorizations issued to transporters of hazardous wastes. A Public Notice was issued to this effect by MPCB in leading news papers which appeared twice with a gap of one week in December, 2003.

In response to the above public notice, 14 H.W. Transporters applied for authorization under the revised H.Ws transportation guidelines. The applications have been processed and the conditional authorizations have been granted to the transporters. The list of authorized transporters is annexed at **Annexure XIII**. MPCB is periodically organizing the campaigns through its Regional offices to create awareness among the transporters and is also monitoring the compliance of the conditions imposed in the authorizations issued to them.

8.0 Show cause notices to Auctioneers

As per Hazardous Waste Rules, waste oil/used oil and other waste listed in schedule IV are required to sale or auction only to those recyclers registered with CPCB possessing EST and ESM in order to regulate the auction of such materials in the State, show cause notices were issued to 14 no. of auctioneers / bulk consumers selling the wastes.

Ministry of Environment and Forests, Govt. of India has issued a notification {No. S.O.826 (E)} dated 19.7.2004 amending the HW (M.&H.)Rules, 1989. These rules permit the re-refiners and recyclers to file compliance report on adoption of one of the technologies mentioned in the sub rule (1) of Rule 19 of the HW Rules on or before 31.12.2004. Accordingly the cases pertaining to this directive of the Apex court are being looked in to afresh and decisions taken in accordance with the revised rules.

9.0 Strengthening of MPCB

MPCB has taken various actions for institutional strengthening as directed by the Apex Court. Details of the actions taken are as under:

| Sr. No. | Item | Status |
|---------|--|--|
| 1 | Procurement of instruments for strengthening infrastructure of laboratories (a) Air Pollution= 1.24 Cr. (approx.) (b) Water Pollution=2.28 Cr. (approx.) | Procurement is in progress. Short term Consultant appointed to facilitate procurement. |
| 2 | Work study by CRISIL for need assessment of institutional strengthening. Total Value: Rs. 30.2 lakhs To be completed in 2 months. | Work order issued. Work is in progress |
| 3 | e-governance/ Computerization | SRS study has been completed. The preparation of |

| | | |
|----|---|--|
| | (a) SRS Study and (b) Preparation of RFP Total Value: Rs. 8.0 Lakhs To be completed in 2 months. | the RFP is also completed and the pre bid conference is held on 31.7.2004. The tenders shall be opened on 11.8.2004. |
| 4 | H.W.Inventorization | Work is in progress. Likely to be completed by November 2004 |
| 5 | Purchase of premises at Kalyan, Nanded and Mumbai to augment space requirement. | Actions completed. |
| 6. | Procurement of vehicles for surveillance, inventory etc. | Proposal submitted to the State Government for approval. The proposal is currently deferred and additional details have been sought from the Board by Government as discussed in the meeting held on 17.6.2004 |

MoEF has communicated a sanction of Rs. 45 lakhs for appointing the staff viz. Junior Research Fellows (3) Data Entry Operator (1) and Field Assistants (3) for the work on the Hazardous waste management in Maharashtra. An amount of Rs. 11.00 lakhs has been received as the first installment from the ministry as per the Apex Court directives. The capacity building project also includes purchase of equipment like Computer, printer and photocopying machine. The actions on filling up of the posts and purchase of the equipments have been completed. The second installment of the grant-in-aid is awaited from the Ministry.

10.0 Awareness programme

Programme for mass awareness, public participation and information dissemination are taken up. Print & electronic media and NGOs are also involved.

Periodically, notices are being issued in the print media to inform the actions that are necessary for compliance of directives of the Apex court. (Copies enclosed). A post of Public Relation Officer has been filled on contract basis for co-ordination of activities and establishment of rapport with electronic and audio visual media.

11.0 Rehabilitation of dump sites

The work on identification of illegal dumpsites outside MIDC is being out-sourced, as mentioned in the earlier part of this report to NRSA. The technical and financial proposal is awaited from NRSA. Rehabilitation plan for the dumpsites, as may be identified by

NRSA, shall be prepared based on the final output of the proposed pilot study. Initially this study would focus on Thane district and it shall be extended to other areas based on the findings of the pilot study. The results of the study shall be sent to CPCB as directed by the Apex Court for preparation of the National Rehabilitation plan for the illegal HWs dumpsites.

MIDC has also requested NEERI, Nagpur to prepare feasibility report on rehabilitation of illegal hazardous waste dumpsite at MIDC Tarapur industrial area. Approximate quantity of hazardous waste at this site is about 1.5 lakhs MT. This consists of mostly ETP sludge; ash etc. accumulated over a period of about 10 years or so. The issues pertaining to rehabilitation of this dumpsite were discussed in the meetings held by Chief Secretary, Govt. of Maharashtra on 12.5.2004 and by SCMC team during their visit to Mumbai on 5.6.2004, respectively.

12.0 Display of information regarding authorization

Directions are issued to industries for display of information regarding authorization granted. Public Notice to this effect has been issued through leading news papers in the State directing all concerned to ensure compliance of the court orders.

The SCMC team during their visit in June, 2004 also issued directions regarding setting up of the display boards by the industries. So far 1065 industries have reported compliance of this directive. Some of the industries are closed due to various reasons. The efforts are stepped up to ensure that remaining comply with the directives. All Regional and Sub Regional Officers of the Board have been directed to ensure that the directives are complied forthwith. The letter dated 23.7.2004 sent to R.O.'s is annexed at **Annexure XI**.

SCMC had also directed MIDC to put up display boards at the illegal dumpsites so that industries do not resort to dumping of the wastes at those places. The directives of SCMC have been complied with as reported by MIDC to the Ministry vide their letter dated 7.7.2004 annexed at **Annexure V**.

13.0 Ship-breaking

The ship breaking activity in Maharashtra is limited at Lakri Bunder and Powder Works Bunder at Darukhana in Mumbai Port Trust Area. MbPT has earmarked 19 plots for ship breaking activity in Mumbai as mentioned in 2nd ATR submitted by MPCB to the Ministry> MbPT has assured that the number of plots, for ship breaking in their area, shall not be increased in future. Besides, there is no regular allotment of plots to the ship breakers, as is being done

in Alang, Gujarat, where the area is under the control of Gujarat Maritime Board. The plots are given to the ship breakers on arrival of the ship for breaking. Generally, smaller ships arrive at Mumbai for breaking. The authorizations have been granted to 27 ship breakers who operate in MbPT area. The list of authorizations given is annexed at **Annexure XIV**.

A team of senior officers of MPCB was deputed to Alang Ship Breaking Yard to study the Ship breaking activity as covered in the directives of the Apex Court during 15-17th May 2004. Based on the experience gathered by them during the above visit, the process of issuing authorizations to ship breakers in Maharashtra has been further refined to suit to the local conditions. The steps are taken to monitor the ship breaking activity as per the Apex Court directives.

Mumbai Port Trust has been directed to adhere to the directives of the Apex Court while permitting the ship breaking activity. However, no ship breaking activity was being carried out at the time of reporting.

It has been reported by Maharashtra Maritime Board that there are no ship breaking activities being carried out on the coastal stretches in Maharashtra except in the area under Mumbai Port Trust (MbPT).

14.0 Burning of hazardous and non-hazardous wastes on beaches

The directives of the Supreme Court have been communicated to the District Collectors in the coastal districts of Maharashtra and they have been directed to take the effective steps to stop burning of hazardous or non-hazardous wastes on the beaches and/or near the creeks. A public notice has been issued in the Newspapers published from the coastal districts for the knowledge of the local people that burning of hazardous and non-hazardous wastes in the coastal areas has been prohibited by the Supreme Court. The Field Officers of MPCB located in the coastal districts are also being informed to maintain vigil and report the violation for taking further legal action.

15.0 Bio-Medical Waste

A public notice has been issued in all the leading news papers directing all hospitals and health care establishments to apply for authorization under BMW Rules by August 16, 2004. Regional officers of the Board will be directed to initiate legal proceedings against the defaulters immediately after the expiry of the notice period. The notice published in the news papers is annexed at **Annexure XV**. Report on status of some common facilities for collection, Treatment and disposal of bio-medical waste in

Maharashtra has been prepared by MPCB and is being submitted separately to SCMC.

16.0 Plastic Waste management

MPCB has issued a notification for banning the manufacture of the plastic bags which are less than 20 microns. The Regional Officers of the Board has been directed to keep a strict vigilance over the plastic bags manufacturing units located through out the State and take legal action as provided under Rules for the Recycled plastics manufacture and usage, 1999(amended 2003). Three such plastic bag manufacturing units have been prosecuted for the default.

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ANNEXURES